ITSD

discovering MONTANA

Moving forward together.

State of Montana

Information Technology Biennial Report

January 2003

500 copies of this document were printed at an estimated cost of $5.10 per copy, for a total cost of $2,550 which includes $2,550 for printing and $0 for distribution.

Forward

The 2001 State Legislature recognized information technology as an enabler of government services and also the complex and often overwhelming nature of controlling the growth and cost of state government's IT investments.

In July 2001, the Montana Information Technology Act (Senate Bill 131) became effective. The Act accomplished several things including the creation of the Chief Information Officer position and establishment of guiding principles for the implementation of information technology in state government.

The Montana Information Technology Act also requires that the State biennially prepare a report on the progress made in achieving the goals and initiatives enunciated in the Strategic Plan. The report also includes an analysis of the State's IT infrastructure including it's value, condition and capacity; an inventory of IT equipment, software and services as well as an evaluation of IT performance. This document is the first of such reports.

This report begins with a description of the IT infrastructure as it exists in 2002. A summary of IT expenditures of the State for fiscal year 2001-2002 follows. A high level look at how IT is deployed in state government and how well it is performing is then provided. The next sections of the report include a summary of the State Strategic Plan for Information Technology followed by a summary of individual agency IT plans since an analysis of the current state of Information Technology must be viewed in context of our plans. This report is by nature a summary of vast amounts of detailed information. If you have further questions regarding the use of Information Technology by the State of Montana, contact the Information Technology Services Division of the Department of Administration.

Table of Contents

Forward ii
Analysis of Infrastructure 1
- Introduction 1
- Information Technology Environment 1
- ITSD Responsibilities, Services, and Resources 1
- IT Personnel 2
- Mainframe Computing Environment 4
- Mainframe Applications 4
- Mid-Tier Computing Environment 5
- Mid-Tier Applications 6
- Enterprise Database 7
- Personal Computer (PC) Environment 8
- PC Applications 8
- State Data Network Environment 10
- Local Area Network Environment 10
- Directory Services 11
- Internet Access 11
- Enterprise E-mail 12
- Centralized Imaging Services 12
- State Telecommunications Systems 12

State of Montana IT Expenditures – 2002 14
IT Performance 20
- Performance Measurement Methodology 20
- The Balanced Scorecard Methodology 20
- Agency IT Performance 20
- Agency IT Accomplishments 21

Progress Towards State IT Plan Implementation 26
- Statutory Requirements 26
- An assessment of progress in implementing the State Strategic Plan 26
- Status of Strategic Initiatives 26
- Implementing Best Practices 26
- SummitNet 27
- Interactive Video 27
- Montana Educational Network Cooperative 28
- Public Safety Communications 28
- E-Government 29
- Montana Geographic Information Systems 29
- Criminal Justice Information Systems Project 30

Strategic Plan for Information Technology – Executive Summary 31
Summary of Agency IT Plans 36
- Overview of Agency IT Planning Process 36
- Summary of Agency IT Plan Components 36
- General Conclusions 37
- Summary of Planned Agency IT Activities 37
- Major IT Projects 41

Analysis of IT Infrastructure

Introduction

This section describes and analyzes the State of Montana's computing environment. The information contained in the section does not include the computing environment maintained by the Montana University System. The section refers to enterprise standards established for the state. Hardware and software that fall under these standards represent a large majority of the installed base, although individual agencies may differ in their hardware and software needs. Agencies must request and justify the use of nonstandard hardware or software. In accordance with the Information Technology Act, an exception to the standards may be granted by the Department of Administration.

Information Technology Environment

The State's information technology environment is managed and operated from an enterprise perspective mandated by the Montana Information Technology Act of 2001. The governance structure involves several organizations (Information Technology Board, Information Technology Managers' Council, SummitNet Executive Council, Electronic Government Advisory Council, and others), the Information Technology Services Division (ITSD) of the Department of Administration, and agency information technology organizations. For a description of this governance structure, as well as detailed information about the State's plans for technology, see the State Strategic Plan for Information Technology (see the Executive Summary in Section 3). Copies are available on request or can be accessed on the State of Montana Internet web site at **http://www.state.mt.us/itsd/stratplan/statewideplan.asp**

ITSD Responsibilities, Services, and Resources

The ITSD is responsible for the delivery of information services and the planning, coordination, training, control and security of information resources throughout state government. Information services and resources provided include:

- Computing and telecommunications hardware and software;
- Operational services;
- Professional hardware and software specialists to support the technical environment;
- Web development services and support; and
- Professional specialists to develop and coordinate policy, research, and development of information resources.

ITSD manages a mainframe platform and associated software for applications requiring these resources. ITSD manages a distributed network of mid-tier computing platforms (non-mainframe and non-PCs), and a central mid-tier service. ITSD also manages the statewide voice and data networks that allow all agencies and other qualifying organizations, including remote offices, to communicate with and use central resources.

ITSD establishes enterprise-computing policies in coordination with agencies. ITSD also works with agencies to develop strategic plans and directions for information technology in the State. Enterprise computing contracts are also managed by ITSD.

All projects shall coordinate with ITSD to incorporate the state enterprise architecture model requirements for:

- Data types and structures
- Interfaces standardization
- Naming conventions and development standards
- Modeling practices
- Standard language, hardware, and tool sets
- Deliverable compliance

IT Personnel

Table 1 on the following page provides a count of all state employees, including the University System, the Judicial and Legislative Branches, by job title. These job titles (and position codes) have been categorized as IT related positions. The table also includes a brief description of the position title. An employee may be counted in this table when only portions of their duties are related to IT.

Table 1
IT Personnel State of Montana 2002

(Includes University System)

Count	Title	Description
82	Executives	Directors, Career Executive Assignments, Assistant Deans etc
83	IT Managers	General administrative oversight for IT function within agency
30	Computer Operator	Operation of large scale, multiprogrammed computer systems. Routine operation of tape drives, disk drives, printers and plotters. Resolves network and systems problems via the computer system.
5	Computer Security Specialist	Monitors, evaluates, and maintains systems and procedures to protect the systems and databases from unauthorized users. Identifies potential threats and responds to reported security violations. Researches, recommends, and implements changes to procedures and systems to enhance data systems security.
16	Database Analyst	Evaluates and designs existing or proposed systems to structure and access databases. Analyzes database requirements of the user department, applications programming and operations.
4	E-mail Support	Support the company-wide messaging system. Responsible for analyses of message flow and server usage.
7	Help Desk	Assist internal users on complex matters. Responsible for recognizing, researching, isolating and resolving information systems problems.
534	IT Support	Technicians, specialists and analysts providing broad range end user and system support functions.
3	Training	Provides agency training on variety of Information Technology equipment and software.
13	Network Administrator	Installs, maintains and monitors the operation of the organization's local area network. Recommends and implements LAN policies and standards and ensures adherence to security procedures.
50	OS Programmer	Develops, tests, installs and modifies computer software, such as operating systems, compilers, utilities, multiprogramming, and telecommunications systems. Creates logic flowcharts, and encodes, tests, debugs, documents, and installs programs, interfaces with, and supports the applications programming efforts.
228	Programmer/Analyst	Analyze user needs and developing applications. Consults with users to analyze needs and objectives in conjunction with system capabilities and restrictions. Translates designs into computer language code, tests application systems, modifies existing application systems, and trains users.
32	IT Business Analyst	Conduct business process analyses, needs assessments, and preliminary cost/benefits analyses in an effort to align information technology solutions with business initiatives.
9	Telecom Analyst	Evaluates, designs, and maintains existing or proposed data telecommunications systems. Analyzes the needs of the user and recommends solutions to the hardware and or software systems. Prepares detailed specifications and flowcharts for implementation of new internal programs or modifications to vendor software and services for vendors.
28	Telecom Specialist	Performs agency move or new service installation, troubleshooting telecommunication network equipment, monitoring network traffic, and managing portions the telecommunications system.
21	Administrative positions	Accounting services, office management, personnel/HR functions
48	Miscellaneous	Student employees, artists, videographers, research assistants
1,193	**Total**	

Mainframe Computing Environment

The State operates an IBM "Generation 5" CMOS mainframe with MVS Operating System, and direct attached Random Virtual Array disk storage. The State mainframe resides in a 24/7 facility that provides the appropriate controlled environment. In addition, the mainframe environment includes an automated tape library/virtual tape library, high capacity print subsystem, and IDMS database capability, CICS and ADSO transaction monitors, and online report viewing. The mainframe is connected to the network through Systems Network Architecture and TCP/IP.

Within the mainframe environment, the state must address some potential obsolescence issues. While all significant mainframe products in production are fully supported, the traditional workload of the mainframe that is recharged to users is steadily decreasing. Use of CICS and IDMS is steadily being replaced by relational database and n-tier client/server applications. Establishing a viable relational database on the mainframe is crucial to transforming the workload of the mainframe and preserving the State's investment in the hardware and software infrastructure..

Mainframe Applications

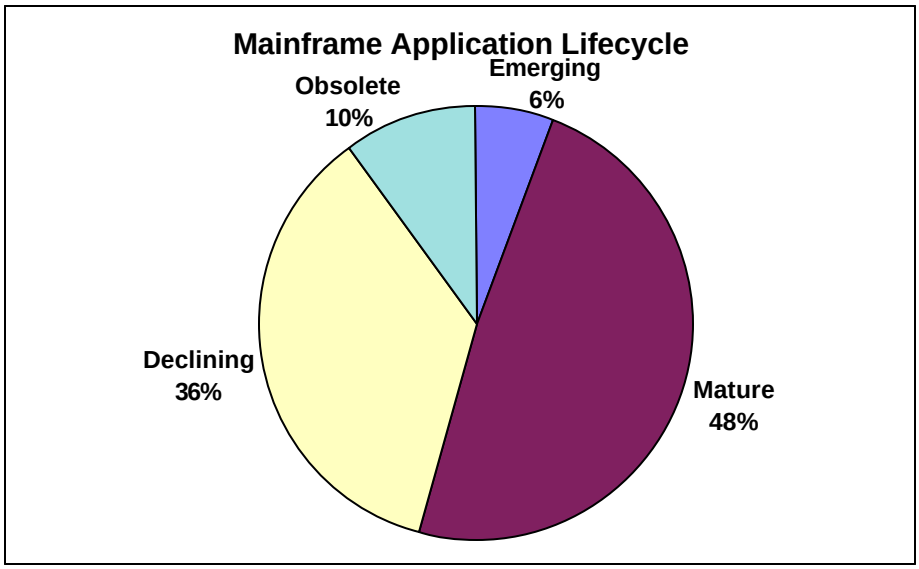
In the not so distant past, most applications in use by the state were developed and maintained in the mainframe environment. The ever-advancing trends and changes in technology have moved application processing away from the mainframe environment. Monolithic, transaction-based applications are being replaced with three-tier client server (often web-enabled) applications. The appropriate role of the mainframe as a large, central server must be determined as workload evolves.

A recent survey of state agencies identified 70 applications currently processed on the state's mainframe. These include applications such as:

- Vehicle Titling & Registration system (Department of Justice)
- MOTRS (Department of Transportation
- Federal Billing Voucher (Department of Transportation)
- Individual Income Tax system (Department of Revenue)
- Public Employee Active and Retiree systems (MPERA)
- The Economic Assistance Management System (Department of Public Health & Human Services)
- System for the Enforcement and Receipt of Child Support (Department of Public Health & Human Services)

The agencies included an assessment of the lifecycle of each application. As depicted in Figure 1, 46 percent of the mainframe applications are either declining or obsolete. Most agencies indicated in their IT plan an intent to migrate these systems to the mid-tier environment.

Figure 1



Mid-Tier Computing Environment

The mid-tier computing environment is targeted toward general purpose, multi-user, multi-tasking application services. The standard operating systems are Microsoft Windows NT, IBM AIX and Compaq TRU64 UNIX. The hardware used in the mid-tier environment varies based on the intended use of the server. The primary hardware used by ITSD and those agencies with major applications operating in this environment are Digital Alpha and IBM RS/6000 computers. The strategic direction for the mid-tier environment is IBM RS/6000 technology.

Unlike the preceding discussion regarding the mainframe environment where the state maintains only one mainframe, most agencies use and maintain some mid-tier hardware and software in the form of servers. As indicated, this environment is targeted toward general purpose, multi-user, multi-tasking application services. Each server identified by an agency may be used for multiple purposes. In our recent survey agencies categorized server usage as: application, data, file, print or web use. The results of the survey indicate the state maintains 703 servers.

As identified in the State Strategic Plan for IT – Best Practices Strategic Initiative, the state has begun evaluation of the number and type of servers used in state government. In the evaluation process, the department proposed to develop a server consolidation proposal that would reduce unwarranted duplication of agency server, reduce associated support and licensing costs, and provide a better foundation for growth and scalability across agencies. Consolidation could involve servers located throughout the state and in Helena.

The charts in figures 2 & 3 provide summary information regarding the lifecycle of the state's servers and the type of usage. Most servers provide multiple uses as indicated in figure 3.

Figure 2

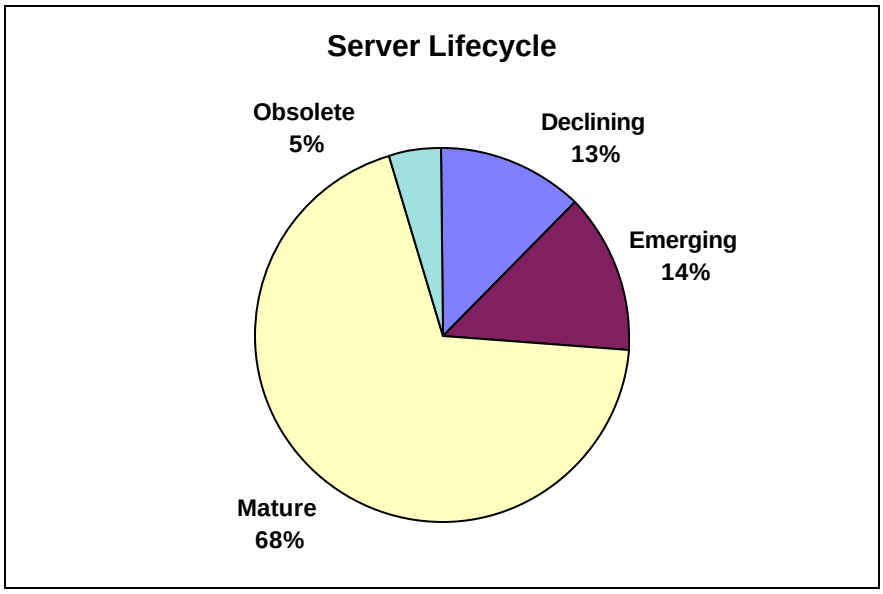
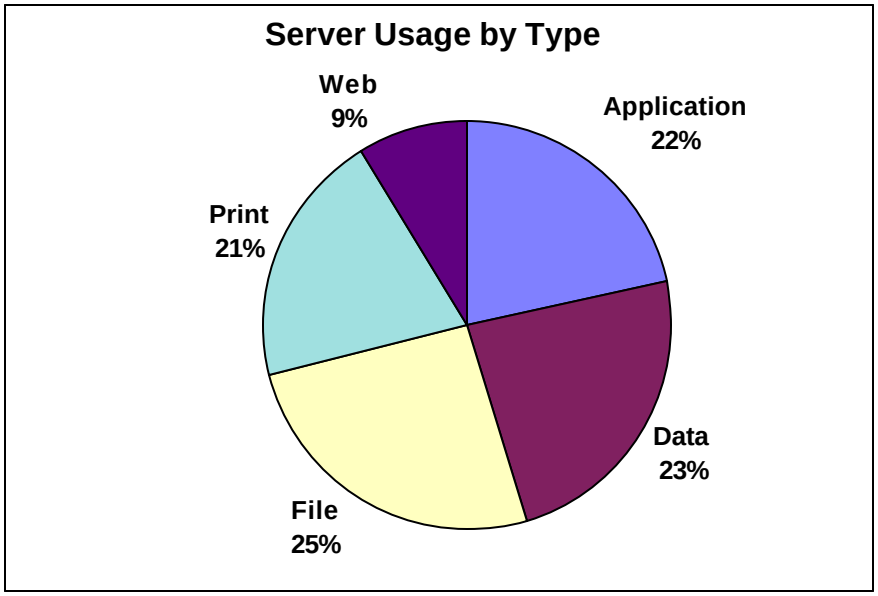


Figure 3



Mid-Tier Applications

As discussed above, the ever-advancing trends and changes in technology have moved application processing away from the mainframe environment to the mid-tier and desktop (personal computer) environments. The pursuit of end-to-end e-government solutions will continue this trend.

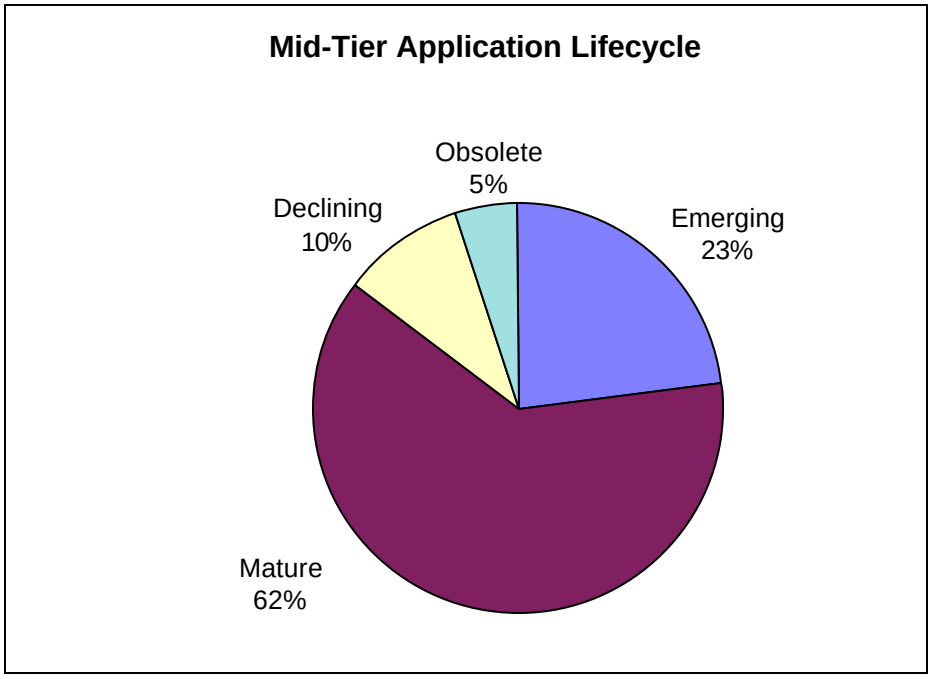
The application survey completed by state agencies identified 164 applications currently in production in the mid-tier environment. This number includes applications such as:

- Legislative Automated Workflow System (Legislative Branch)

- Automated Licensing System (Department of Fish, Wildlife, and Parks)
- Air Quality System (Department of Environmental Quality)
- One-Stop Licensing System (Department of Revenue)
- SABHRS (Department of Administration)
- Travel Promotion database (Department of Commerce)
- UI Benefits System – MISTICS (Department of Labor & Industry)

The agencies included an assessment of the lifecycle of each application. As depicted in figure 4 below, 85 percent of the mid-tier applications are either mature or emerging. As agencies continue to assess their information technology needs and propose different ways to provide services to the public, it is likely the trend to consolidate and integrate applications and data will continue. The IT plans of the majority of agencies indicated an intent to migrate these systems to the mid-tier environment.

Figure 4



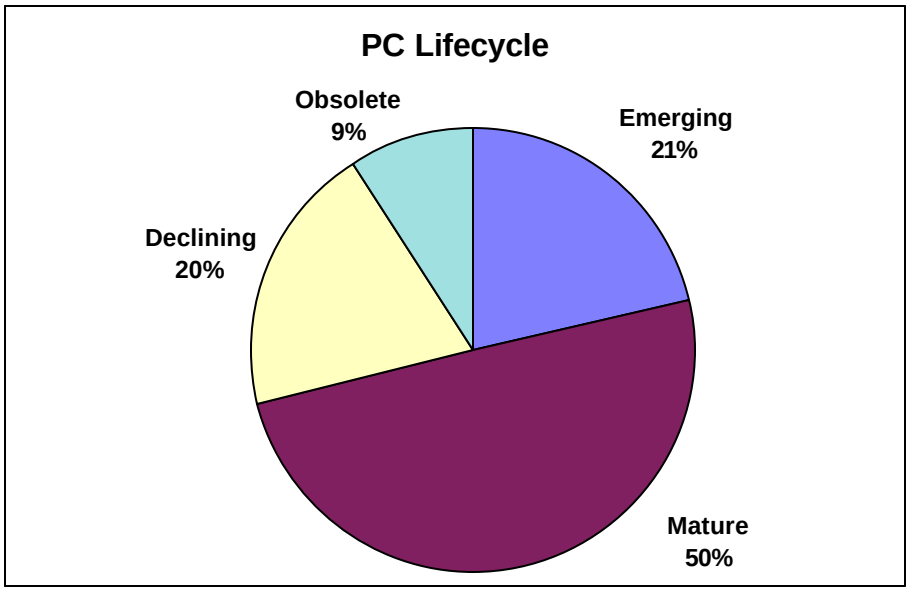
Enterprise Database

The State has established Oracle as its enterprise database standard. Oracle is one of the key foundational pieces for the implementation and deployment of client/server computing and distributed processing in the State. Most of the above listed applications are built with Oracle serving as the database engine. The State of Montana has entered into an Enterprise License Agreement (ELA) with Oracle to license the use of the Oracle products, including Oracle Database Enterprise Edition, Advanced Security Option, Partitioning, Real Application Clusters, Internet Developer Suite and Internet Application Server.

Personal Computer (PC) Environment

The State has established a personal computer (PC) standard based on IBM and IBM-compatible equipment and selected software. ITSD provides technical support for hardware and software within this standard. The State currently has in place term contracts for purchases of PCs manufactured by Dell, IBM, and Compaq. The emphasis in the PC environment is on the use of networked systems. The State's 4 year replacement cycle results in a distribution of PC's as depicted in Figure 5 below.

Figure 5



The State standard and supported operating systems are Windows 98, Windows NT4, Windows 2000 and Windows XP. The supported desktop software standard is Microsoft Office 2000 and Office XP. MS Access is the desktop database software standard for small applications.

PC Applications

The introduction of the personal computer (desktop) to state government in the mid-80's changed the technology environment. State employees have become more sophisticated as users of the desktop to enable them to complete their business. The ever-advancing trends and changes in technology and the increased knowledge of state employees have moved the conduct of business and analysis of information and application processing away from the mainframe environment to the mid-tier and desktop environments. The pursuit of end-to-end e-government solutions will continue this trend.

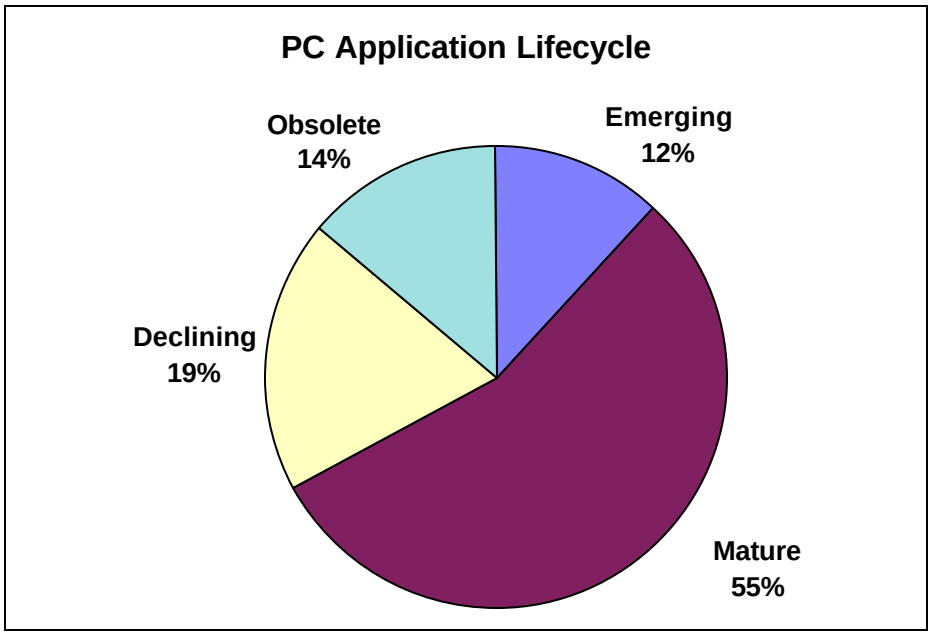
The use of the desktop for information gathering and analysis is demonstrated by the identification of 458 applications currently in production in the desktop environment. This number includes applications such as:

- Searchable Properties database (Governor's Office)
- Special Education: End of Year Reporting (Office of Public Instruction)
- MAIFAIRS (Office of Public Instruction)
- Hazardous Waste database (Department of Environmental Quality)

- Meat Licensing/Meat Inspection systems (Department of Livestock)
- Weed Management Programs (Department of Agriculture)
- Montana Job Source (Department of Labor & Industry)

The agencies included an assessment of the lifecycle of each application. As depicted in figure 6, 67 percent of the PC are either mature or emerging. As agencies continue to assess their information technology needs and propose different ways to provide services to the public, it is likely the trend to consolidate and integrate applications and data will continue.

Figure 6



Microsoft Office License Counts

Microsoft Office has been selected as the state standard for the desktop application suite. There are a total of 9,525 Microsoft Office licenses as can be seen in Table 2 below.

Table 2
MS Office Licenses
as of June 30 2002

	Office 97	Office 2000	Office XP	Total
Total	1851	7617	57	9525

Security Software License Counts

The State also maintains enterprise wide licenses for its security software. The state purchases 11,000 user licenses for Network Associates McAfee VirusScan Security STE, VirusScan Security STE Connect and Antigen software.

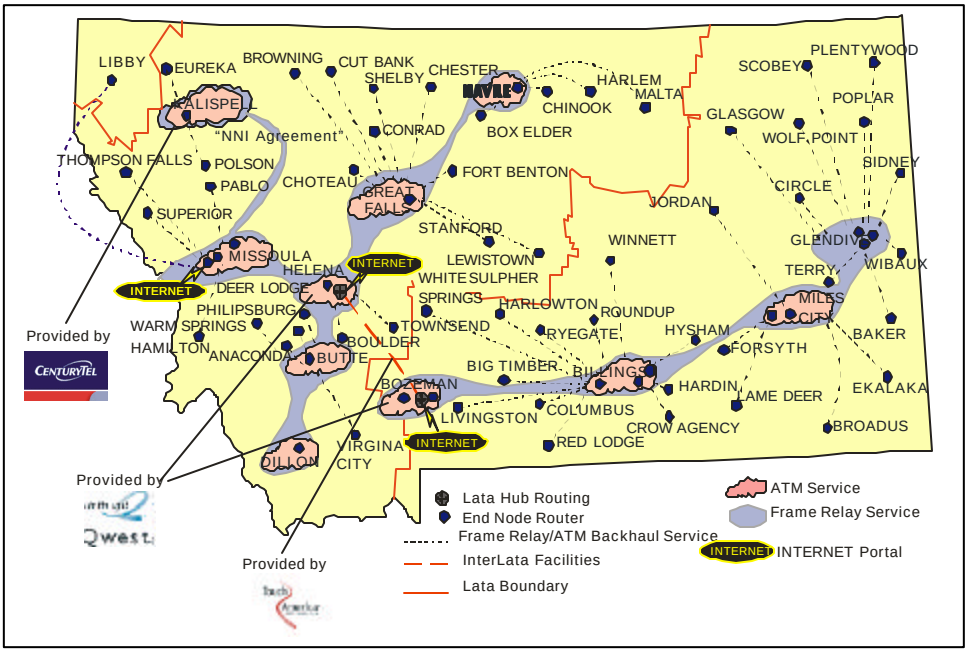
State Data Network Environment

The State provides data networking facilities and services for all agencies and other qualifying organizations. SummitNet (the State and Universities of Montana Multi-Protocol Network) is the Intranet for the State of Montana and the Montana University System. The primary supported protocol is TCP/IP, but it also supports some IPX. The SummitNet core backbone is currently a T-1 meshed network connected by Cisco 7500 series routers located in Bozeman, Helena, and Missoula. In the next 6 months, the State will be migrating to an ATM based core network connecting major campus sites in Billings, Bozeman, Butte, Dillon, Great Falls, Havre, Helena, Kalispell, Miles City and Missoula. Helena has 2 major aggregation locations, one at the Mitchell Building, 125 N. Roberts and one at the National Guard Armory, 1100 N. Main.

Remote locations are typically connected by 56Kbs/28.8CIR and T1/768 CIR frame relay circuits. The State perceives that the number of T1/768 CIR installations and 56Kbs/28.8CIR circuit upgrade to T1/768 CIR will grow significantly. ITSD uses a private address numbering plan for IP addressing requirements with the general government portion of SummitNet. The State utilizes Cisco Private Internet Exchange (PIX) hardware to provide IP address translation and firewall protection.

SummitNet currently has approximately 445 routers installed through the network; with 395 connected by frame relay circuits. There are 12 K-12 school districts, 10 city and county government connections currently installed.

Figure 7



Local Area Network Environment

The State has implemented two major data networking topologies, Token-Ring and Ethernet. ITSD maintains a Campus Fiber Backbone (CFB) network for connecting Local Area Networks (LANs) deployed throughout the State Capitol Complex in Helena. Each building has a collapsed backbone

connecting multiple segments within IBM 8260 intelligent hubs or Cisco Ethernet switches to connect to the CFB. The State also has a growing number of 802.3 Ethernet switched LAN environments.

Most remote offices use IBM 8228 Multi-Station Access Units (MSAU) or Cisco Ethernet switches for LAN connectivity. The majority of the remote offices are wired with CAT-5 UTP cable, but some Type 3 cable still exists. These remote offices operate at speeds of 16Mb, 10Mb, or 4Mb depending on their wiring infrastructure, LAN topology and workstation capabilities. Remote LANs are typically connected to the backbone with 56Kb/28.8CIR or T1/768 CIT frame relay circuits and Cisco Routers.

Novell's NetWare 5.x and 6.x are the standard LAN/WAN operating systems. ITSD currently supports two versions of NetWare encouraging migration to Netware 6.x. Currently, the State has approximately 250 NetWare 5.x and 10 NW 6.x servers. The IP protocol is used for the LAN/WAN. The State uses a single Novell Directory Services (NDS) tree for enterprise management and security of NetWare file and print services. The NDS tree is centrally managed by ITSD. NetWare is the State supported standard for file and print services.

Directory Services

The State does not have a single directory strategy, but rather a number of strategies that incorporate proprietary directories. The State uses NDS for NetWare file and printing services, ACF2 for the OS/390 mainframe environment, Active Directory for Windows 2000 server environments. In addition, numerous applications have their own directories including Microsoft Exchange, PeopleSoft and Oracle. The State will be considering options for an enterprise directory strategy to integrate the various directories currently in operation.

Internet Access

The State of Montana, the University of Montana and Montana State University currently maintain their own Internet portals. ITSD currently contracts with VISION NET for Internet Access. The Internet connection is via an ATM circuit connected to a State owned Cisco router located in the Mitchell Building in Helena.

The ATM circuit provides Internet access for State, County, City governments and other approved non-profit entities, across the State, via the State's WAN. The State's current WAN community gains access to Internet via approximately 305 - 56K and 70 - T1 frame relay circuits. Approximately 40 percent of this WAN traffic is aggregated in Billings and transported to Helena via two ATM circuits. A small portion of the traffic is aggregated in Kalispell and transported to Helena.

All entities utilizing the State's four Internet portals pass through a State owned firewall. The firewall resides on the same LAN segment as the State owned Internet router. This segment is defined as being on the outside of the State network. The firewall provides security to all devices on the inside of the State's network.

The State uses private IP addressing for devices that reside on the inside of the

firewall. IP administration, which includes IP address management and Domain Name Services (DNS), is maintained by State personnel for entities connected to the State's WAN and LAN networks. Many users have installed web browsers and actively use the Internet. Microsoft Internet Explorer is the supported web browser.

Enterprise E-mail

The enterprise e-mail system is Microsoft Exchange using the Microsoft Outlook client on the desktop. The total number of email accounts is 10,554 as of November 2002.

Centralized Imaging Services

The State has implemented a Centralized Imaging Service based on FileNet's Panagon web based software.

State Telecommunication Systems

The facilities of the State's telecommunications systems are provided principally for the conduct of State and University System business. The State's telecommunications systems are available for use by political subdivisions of the State. Political subdivision means: any county, city, municipal corporation, school district, special improvement district or taxing jurisdiction, or any other political subdivision.

The State of Montana currently operates a voice, data and video network over leased digital T-1 and DS3 circuits linking Montana city pairs. Currently the State maintains DS3 connections between QWEST Communications and the Mitchell Building in Helena, the University of Montana in Missoula, and Montana State University in Bozeman.

The State is in the process of migrating to an ATM based core network, for voice, video and data, connecting major campus sites in Billings, Bozeman, Butte, Dillon, Great Falls, Havre, Helena, Kalispell, Miles City and Missoula, along with the other PBX and video sites in Boulder, Deer Lodge and Warm Springs.

The State Telephone Network links 37 PBXs. In addition there are 6 remote peripheral equipment (RPEs) locations of the Meridian PBX at the Mitchell Building in Helena. The switches utilize Digital Trunk Interfaces (DTI) capability for interconnections. The State Telephone Network utilizes Nortel Electronic Switched Network (ESN) software, supporting alternate routing tables for long distance calling. These tables are for routing On-Network calls to locations where they can best take advantage of carrier service pricing. All of the SL-1 switches have Network Alternate Route Selection. The network control center is located in Helena. The State Telephone Network currently supports 24,105 stations (February 2002).

Six units of the University System have access to the State network. The University System does not provide for student long distance services.

The State has contracts with AT&T, Sprint and QWEST through which long distance calls for agencies on and off the State Telephone Network are billed at

a discounted rate. The State receives and processes magnetic tapes of these records each month. The State uses a client-server based telemanagement system to bill agencies for all aspects of the State's telecommunications network including voice, video and data usage, work orders and equipment.

900 Services with Billing Services

Currently the State utilizes AT&T MultiQuest 900 Service for the Departments of Fish, Wildlife and Parks and the Montana Lottery. Fish, Wildlife and Parks' 900-225-5397 terminates at the Mars Stoudt Call Center in Missoula and is used for the "Tourist and Sportsman Information Line." The department currently charges the originating caller $1.50 per minute. Montana Lottery's 900-225-5825 terminates at the Lottery in Helena, and is used for the "Lottery Results Line." The Lottery charges the originating caller $0.50 per minute. AT&T collects these amounts on behalf of the State as part of its Billing Services. The billing service entails: billing the originating caller, collection of the revenues, and sending the State a monthly check of the revenues from the called minutes for a fee (percent of the revenues).

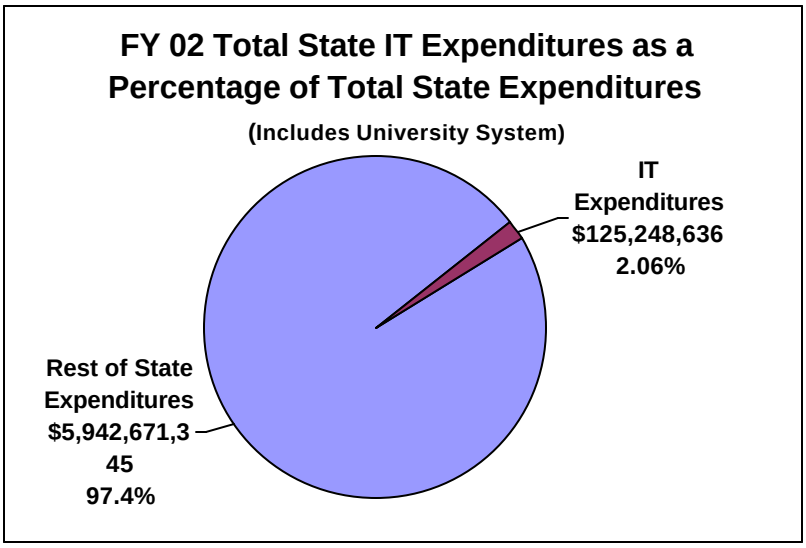
State of Montana IT Expenditures - 2002

State of Montana IT Expenditures

The following expenditure information was taken from the Statewide Accounting, Budgeting and Human Resource System (SABHRS) for fiscal year 2001-02. This information has been adjusted to reflect the expenditures that agencies pay to the ITSD to eliminate double counting of IT expenditures for the enterprise. In addition, these amounts include expenditures of the Montana University System.

Figure 8 depicts total information technology (IT) expenditures as a percent of total state expenditures for fiscal year 2001-02. The average percentage spent by other states and large organizations is between 3.5 and 4.5 percent. The 2.06 percent spent by the State of Montana represents a relatively conservative investment in information technology.

Figure 8



The tables on the following pages show the Actual Expenditures by Agency, by Source of spending authority. Four tables represent five sections depending on the expenditure authority and source of funding, which are summarized below:

Table 3

Section	IT Expenditures
1 - Total HB 2 Appropriations	$73,011,556
2 - Non-HB 2 Appropriations	13,350,022
3 - Non-Budgeted Activity – State Funds	653,146
4 - University System General Operating Fund Expenditures	15,984,826
5 - University System Other Fund Expenditures	22,249,085
Total IT Expenditures	**$125,248,636**

Table 4
FY 2002 Actual Expenditures By Agency By Source of Authority

	Agency	IT Expenditures	Operating Categories*	IT % of Operating	Total Expenditures	IT % of Total
	Section 1 - HB 2 Appropriations					
1104	Legislative Branch	2,141,930	9,509,120	22.53%	9,509,120	22.53%
1112	Consumer Counsel	13,503	1,022,536	1.32%	1,022,536	1.32%
2110	Judicial Branch	620,251	11,082,033	5.60%	11,317,312	5.48%
2115	Chiropractic Legal Panel	18	3,775	0.48%	3,775	0.48%
3101	Governor's Office	198,084	4,270,258	4.64%	4,270,258	4.64%
3202	Commissioner of Political Practices	14,788	333,699	4.43%	333,699	4.43%
3401	State Auditor's Office	266,671	3,506,238	7.61%	3,506,238	7.61%
3501	Office of Public Instruction	1,094,983	10,912,692	10.03%	589,006,927	0.19%
4107	Crime Control Division	135,440	1,214,288	11.15%	12,056,637	1.12%
4110	Dept of Justice	4,874,559	46,351,871	10.52%	47,926,428	10.17%
4201	Public Service Regulation	193,623	2,543,255	7.61%	2,543,255	7.61%
5101	Board of Public Education	4,960	309,797	1.60%	309,797	1.60%
5102	Commissioner of Higher Education	258,201	9,191,027	2.81%	190,809,596	0.14%
5113	School for the Deaf & Blind	91,965	3,830,455	2.40%	3,830,455	2.40%
5114	Montana Arts Council	49,269	551,971	8.93%	894,666	5.51%
5115	Library Commission	777,223	2,917,090	26.64%	3,755,372	20.70%
5117	Montana Historical Society	301,427	3,425,776	8.80%	3,601,093	8.37%
5201	Dept of Fish, Wildlife & Parks	3,409,397	46,941,253	7.26%	47,537,037	7.17%
5301	Dept of Environmental Quality	1,442,650	39,147,245	3.69%	41,548,633	3.47%
5401	Dept of Transportation	11,807,245	411,808,636	2.87%	429,087,908	2.75%
5603	Dept of Livestock	549,172	8,454,425	6.50%	8,454,425	6.50%
5706	Dept of Natural Resources & Conservation	2,192,442	31,166,364	7.03%	36,895,118	5.94%
5801	Dept of Revenue	5,634,528	32,825,718	17.16%	32,832,092	17.16%
6101	Dept of Administration	1,154,871	14,368,258	8.04%	16,502,253	7.00%
6102	Appellate Defender	8,075	178,910	4.51%	178,910	4.51%
6201	Dept of Agriculture	493,858	5,996,138	8.24%	7,862,283	6.28%
6401	Dept of Corrections	2,515,820	91,436,653	2.75%	99,701,848	2.52%
6501	Dept of Commerce	475,297	5,970,576	7.96%	42,897,574	1.11%
6602	Dept of Labor & Industry	6,079,106	40,209,591	15.12%	56,614,411	10.74%
6701	Dept of Military Affairs	870,784	12,186,108	7.15%	12,874,379	6.76%
6901	Dept of Public Health & Human Services	25,341,416	178,650,061	14.18%	930,991,802	2.72%
	Total HB 2 Appropriations	**73,011,556**	**1,030,315,817**	**7.09%**	**2,648,675,837**	**2.76%**
	Section 1 - Funding					
	General Fund	26,671,613	291,818,603	9.14%	1,111,891,786	2.40%
	State Special Revenue	23,131,886	281,624,840	8.21%	329,065,756	7.03%
	Federal Special Revenue	22,745,332	445,567,791	5.10%	1,194,335,080	1.90%
	Capitol Project Funds	0	0	0.00%	933,055	0.00%
	Proprietary Funds	462,725	11,304,583	4.09%	12,450,160	3.72%
	Total HB 2 Funding	**73,011,556**	**1,030,315,817**	**7.09%**	**2,648,675,837**	**2.76%**

Table 5
FY 2002 Actual Expenditures By Agency By Source of Authority

	Agency	IT Expenditures	Operating Categories*	IT % of Operating	Total Expenditures	IT % of Total
	Section 2 - Non-HB 2 Appropriations					
1104	Legislative Branch	22,866	1,034,577	2.21%	1,034,577	2.21%
2110	Judicial Branch	204,291	318,604	64.12%	6,014,149	3.40%
3101	Governor's Office	4,112	280,500	1.47%	280,500	1.47%
3201	Secretary of State's Office	484,321	2,851,067	16.99%	2,851,067	16.99%
3401	State Auditor's Office	0	148,111	0.00%	27,837,250	0.00%
3501	Office of Public Instruction	423,427	1,764,056	24.00%	68,540,091	0.62%
4107	Crime Control Division	2,837	12,000	23.64%	11,284	25.14%
4110	Dept of Justice	1,287,473	4,403,668	29.24%	6,505,984	19.79%
4201	Public Service Regulation	12,575	21,583	58.26%	21,583	58.26%
5102	Commissioner of Higher Education	7,037	5,021,512	0.14%	39,219,157	0.02%
5113	School for the Deaf & Blind	20,400	317,847	6.42%	344,022	5.93%
5114	Montana Arts Council	1,594	72,057	2.21%	472,284	0.34%
5115	Library Commission	85,227	155,825	54.69%	155,825	54.69%
5117	Montana Historical Society	35,997	1,817,020	1.98%	2,068,914	1.74%
5201	Dept of Fish, Wildlife & Parks	35,872	4,683,607	0.77%	7,733,935	0.46%
5301	Dept of Environmental Quality	976,701	4,522,759	21.60%	10,664,638	9.16%
5401	Dept of Transportation	15,095	21,980,774	0.07%	52,581,352	0.03%
5603	Dept of Livestock	3,786	144,872	2.61%	144,872	2.61%
5706	Dept of Natural Resources & Conservation	57,888	20,259,100	0.29%	22,740,269	0.25%
5801	Dept of Revenue	3,859,414	40,274,787	9.58%	194,987,774	1.98%
6101	Dept of Administration	878,193	51,974,439	1.69%	163,434,279	0.54%
6102	Appellate Defender	2,000	2,000	100.00%	2,000	100.00%
6103	State Fund	1,753,222	24,973,494	7.02%	106,930,623	1.64%
6107	Long-Range Building	0	0	0.00%	39,997,559	0.00%
6201	Dept of Agriculture	40,574	773,735	5.24%	3,356,743	1.21%
6401	Dept of Corrections	188,200	8,993,306	2.09%	9,239,026	2.04%
6501	Dept of Commerce	975,928	14,915,763	6.54%	69,849,957	1.40%
6602	Dept of Labor & Industry	1,567,047	9,252,024	16.94%	100,756,680	1.56%
6701	Dept of Military Affairs	313,409	4,629,263	6.77%	34,085,929	0.92%
6901	Dept of Public Health & Human Services	90,536	5,237,460	1.73%	17,506,674	0.52%
	Total Non-HB 2 Appropriations	**13,350,022**	**230,835,810**	**5.78%**	**989,368,997**	**1.35%**
	Section 2 - Funding					
	General Fund	288,984	22,366,051	1.29%	230,436,720	0.13%
	State Special Revenue	788,400	19,871,048	3.97%	113,872,351	0.69%
	Federal Special Revenue	1,115,256	16,201,547	6.88%	78,506,760	1.42%
	Debt Service Funds	0	0	0.00%	13,515,926	0.00%
	Capitol Project Funds	5,168,247	6,227,635	82.99%	36,420,065	14.19%
	Proprietary Funds	5,989,135	166,169,529	3.60%	516,617,175	1.16%
	Total Non-HB 2 Funding	**13,350,022**	**230,835,810**	**5.78%**	**989,368,997**	**1.35%**

Table 6
FY 2002 Actual Expenditures By Agency By Source of Authority

	Agency	IT Expenditures	Operating Categories*	IT % of Operating	Total Expenditures	IT % of Total
	Section 3 - Non-Budgeted Activity -- State Funds					
3401	State Auditor's Office	2	17,878	0.01%	17,878	0.01%
3501	Office of Public Instruction	0	118,047	0.00%	118,552	0.00%
4110	Dept of Justice	11044	552,893	2.00%	2,712,366	0.41%
5101	Board of Public Education	35	2,722	1.29%	2,722	1.29%
5102	Commissioner of Higher Education	0	-2,202	0.00%	82,283	0.00%
5113	School for the Deaf & Blind	0	59,611	0.00%	59,611	0.00%
5114	Montana Arts Council	3599	104,495	3.44%	409,934	0.88%
5115	Library Commission	2,979	68,438	4.35%	68,438	4.35%
5117	Montana Historical Society	9,095	446,115	2.04%	498,886	1.82%
5201	Dept of Fish, Wildlife & Parks	14,085	973,516	1.45%	2,772,022	0.51%
5301	Dept of Environmental Quality	13,096	7,379,486	0.18%	8,300,546	0.16%
5401	Dept of Transportation	0	98,332	0.00%	214,960	0.00%
5706	Dept of Natural Resources & Conservation	177	74,654	0.24%	126,981,245	0.00%
5801	Dept of Revenue	0	0	0.00%	66,043,178	0.00%
6101	Dept of Administration	978	66,594	1.47%	23,516,757	0.00%
6104	Public Employees Retirement System	350,321	5,202,168	6.73%	251,937,918	0.14%
6105	Teachers Retirement System	235,775	1,075,284	21.93%	137,577,312	0.17%
6201	Dept of Agriculture	6,120	130,904	4.68%	1,318,589	0.46%
6401	Dept of Corrections	349	18,050	1.93%	18,050	1.93%
6501	Dept of Commerce	0	1,469,347	0.00%	1,116,346,015	0.00%
6602	Dept of Labor & Industry	871	10,196	8.54%	20,747	4.20%
6901	Dept of Public Health & Human Services	4,620	297,368	1.55%	5,693,113	0.08%
	Total Expenditures	**653,146**	**18,163,896**	**3.60%**	**1,744,711,122**	**0.04%**
	Section 3 - Funding					
	State Special Revenue	59,952	11,651,802	0.51%	15,461,045	0.39%
	Debt Service Funds	0	0	0.00%	55,931,967	0.00%
	Private Purpose/Investment Trust Funds	6,120	189,246	3.23%	1,115,385,651	0.00%
	Permanent Trust Funds	587,074	6,322,848	9.28%	557,932,459	0.11%
	Total Funding	**653,146**	**18,163,896**	**3.60%**	**1,744,711,122**	**0.04%**

Table 7
FY 2002 Actual Expenditures By Agency By Source of Authority

	Agency	IT Expenditures	Operating Categories*	IT % of Operating	Total Expenditures	IT % of Total
	Section 4 - University System General Operating Fund Expenditures					
3513	MSU College of Technology - GF	195,626	5,256,969	3.72%	5,274,756	3.71%
3514	Helena College of Technology - UM	200,103	3,801,563	5.26%	3,811,017	5.25%
5103	University of Montana	7,937,997	88,193,910	9.00%	88,926,669	8.93%
5104	Montana State University	4,503,624	81,807,477	5.51%	82,876,308	5.43%
5105	Montana Tech of the U of M	663,944	15,406,239	4.31%	15,487,547	4.29%
5106	Montana State University - Billings	1,092,207	25,333,274	4.31%	26,290,466	4.15%
5107	Montana State University - Northern	291,984	11,022,015	2.65%	11,183,921	2.61%
5108	University of Montana - Western	369,863	7,354,747	5.03%	7,380,550	5.01%
5109	Ag Experiment Station	405,016	13,321,235	3.04%	13,356,494	3.03%
5110	Extension Service	146,458	6,379,412	2.30%	6,379,412	2.30%
5111	Forestry & Conservation Exper. Station	95,092	924,519	10.29%	924,519	10.29%
5112	Bureau of Mines	70,584	2,197,855	3.21%	2,197,956	3.21%
5119	Fire Services Training School	12,328	505,722	2.44%	506,924	2.43%
	Total Expenditures	**15,984,826**	**261,504,937**	**6.11%**	**264,596,539**	**6.04%**
	Section 4 - Funding					
	Total Current Unrestricted Funding	**15,984,826**	**261,504,937**	**6.11%**	**264,596,539**	**6.04%**
	Section 5 - University System Other Fund Expenditures					
3513	MSU College of Technology - GF	204,656	3,411,513	6.00%	3,693,613	5.54%
3514	Helena College of Technology - UM	139,696	2,616,010	5.34%	3,325,280	4.20%
5103	University of Montana	8,979,477	100,513,948	8.93%	133,150,414	6.74%
5104	Montana State University	8,528,153	178,977,837	4.76%	210,979,517	4.04%
5105	Montana Tech of the U of M	993,670	13,716,963	7.24%	17,016,852	5.84%
5106	Montana State University - Billings	1,867,319	21,051,077	8.87%	25,851,035	7.22%
5107	Montana State University - Northern	968,413	9,361,726	10.34%	11,173,339	8.67%
5108	University of Montana - Western	492,796	8,305,403	5.93%	10,024,825	4.92%
5109	Ag Experiment Station	15,759	964,911	1.63%	1,369,518	1.15%
5110	Extension Service	56,253	3,855,509	1.46%	3,883,082	1.45%
5111	Forestry & Conservation Exper. Station	0	0	0.00%	0	0.00%
5112	Bureau of Mines	0	0	0.00%	0	0.00%
5119	Fire Services Training School	2,893	121,595	2.38%	121,595	2.38%
	Total Expenditures	**22,249,085**	**342,896,492**	**6.49%**	**420,589,070**	**5.29%**
	Section 5 - Funding					
	Total Other Fund Funding	**22,249,085**	**342,896,492**	**6.49%**	**420,589,070**	**5.29%**

Figure 9
FY 02 Statewide IT Expenditures
Includes University System
(Total $125,248,636)

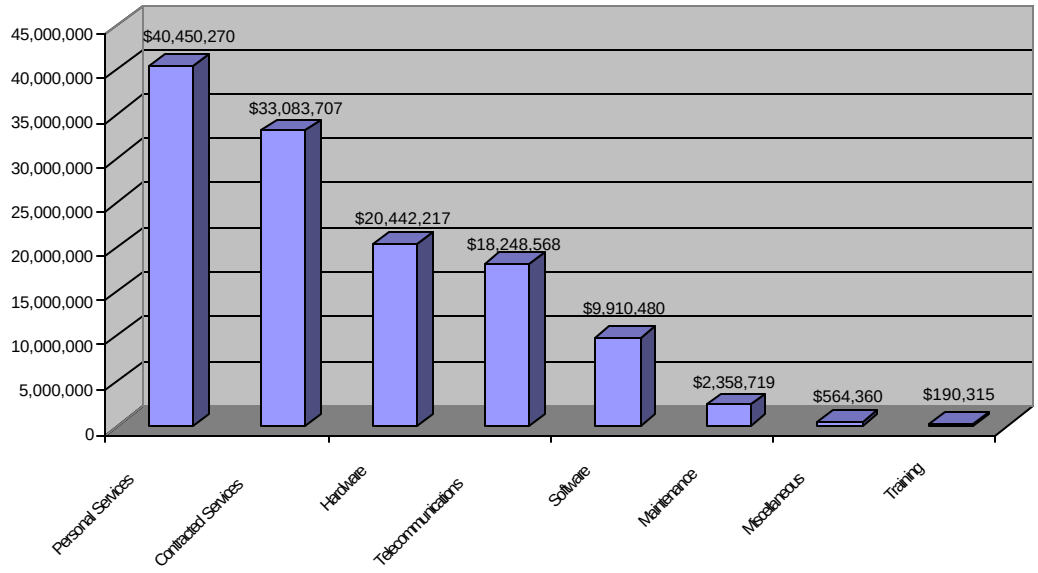
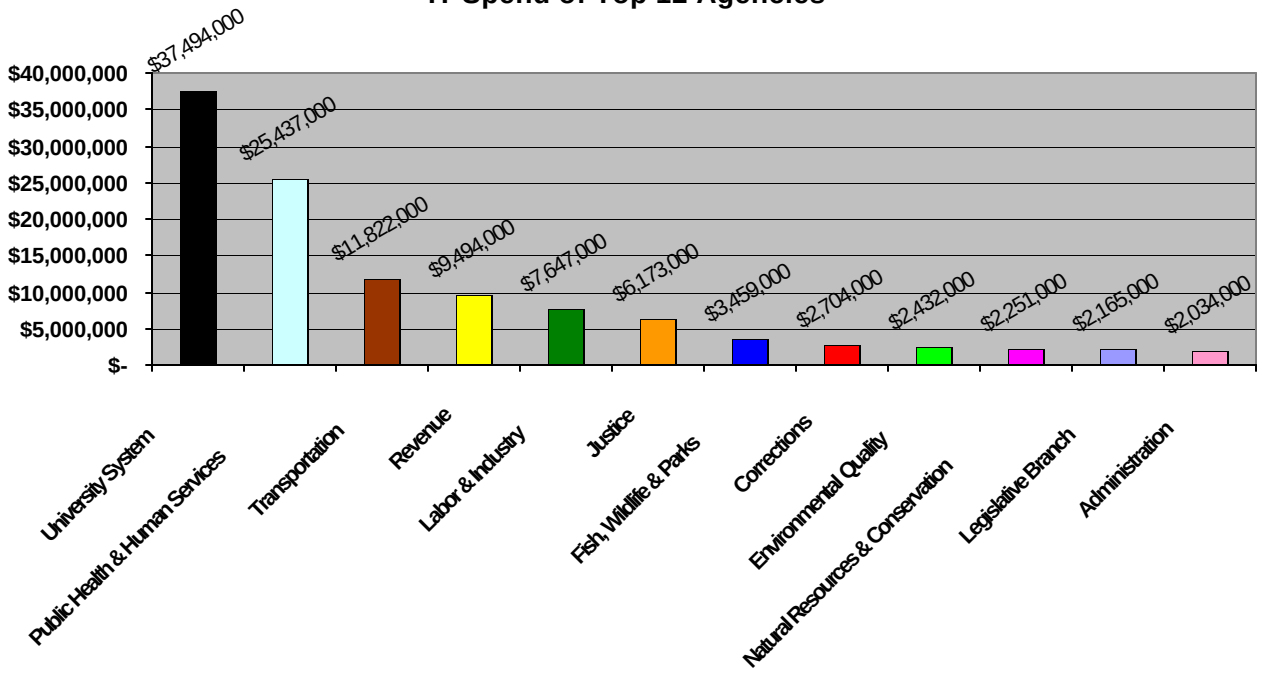


Figure 10
IT Spend of Top 12 Agencies



IT Performance

Performance Measurement Methodology

In evaluating the performance of information technology in state government, the department will need to put measurements in place which allow for the assessment of how well information technology enables state government to accomplish its business objectives. The department is evaluating different methodologies and has proposed implementing the Balanced Scorecard for use by the Information Technology Services Division, and other agencies as appropriate.

The Balanced Scorecard Methodology

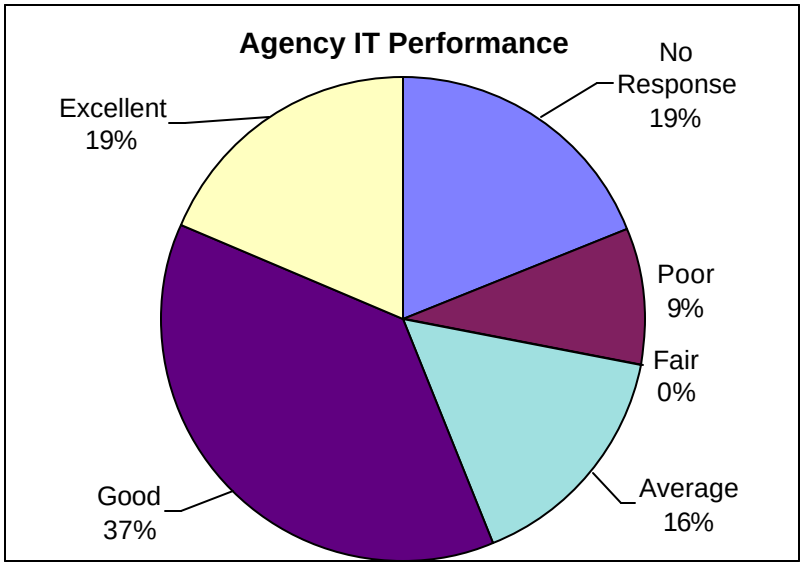
The Balanced Scorecard provides several advantages for performance measurement in an IT organization in that it requires the organization to complete several assessments to identify its desired outcomes and business drivers. The Balanced Scorecard methodology provides a framework that describes the strategy of an organization across four perspectives: Financial, Customer, Internal Processes, and Strategic Enablers. It represents a measurement system that reports on past operating performance and the drivers of future performance as well as a process for implementing and managing organizational change, specifically related to information technology. Finally, the methodology provides a communication system that bridges the gap between goals set by senior executives and front line workers whose performance is ultimately responsible for reaching those goals.

Agency IT Performance

In the survey ITSD recently conducted the agencies were asked to rank how well information technology used by the agency supported the agency in relation to their business processes. The agencies used a five-point scale: 1 = poor, 2 = Fair, 3 = Average, 4 = Good, and 5 = Excellent.

The following graphic displays the results of the survey responses.

Figure 11



Agency IT Accomplishments

In their agency IT plans, agencies were asked to briefly describe any challenging IT initiatives that the agency believed made a significant impact on its existing or future business processes in the last 2 years. What follows is a summary of those responses.

Department of Administration

- Development of a statewide electronic government initiative and the passage of SB405, which provided enabling legislation for the furtherance of electronic government.
- Developing the statewide IT enterprise infrastructure including new voice, data, and video network and internet developments, software standard setting efforts, shared mid-tier enhancements, increased GIS coordination, improved disaster recovery and security procedures, and many more

Department of Agriculture

- Previous IT accomplishments over the last 2 years include converting the Crop Hail Insurance, Pesticide, Hay Hotline and Buyer's Guide applications to Oracle.
- Several Access databases have been written for various programs including the Apiary, Produce and Rural Development Loan Systems.

Department of Commerce

- Developed several Oracle Databases and implemented federal and private industry databases to help Divisions collect and disseminate data to businesses and citizens to facilitate economic growth within the state and maintain proper reporting for federal regulations.
- Development of a web presence for the Department, which has greatly improved communications with other agencies, business partners and the public.
- Converting legacy databases into a single comprehensive Oracle database that serves as the foundation for the department's Web sites, publications and call center.
- Develop new content and Internet applications in an effort to bring more visitors to the State.

Department of Corrections

- Convict information served to public on web http://app.discoveringmontana.com/conweb/index.html
- Adult criminal information (Profiles) reporting
- Adult criminal information system replacement modules developed and deployed (current PRO- Files R1, 2.1B007)
- Ethernet conversion

Department of Environmental Quality

- Integrated System for Organizing Permits (ISOP): the department's first project for the main enterprise-wide database management system.
- Public Water Supply System Conversion: The department, in conjunction with the EPA, converted the Public Water Supply (PWS) data to EPA's Oracle database called Safe Drinking Water Information System (SDWIS-State).
- Air Quality Emission Inventory and Fee Billing: The department developed a module of the enterprise-wide database that stores physical and operational data about regulated sources of air pollutants.

- STORET Data Migration: The department accomplished the first large scale data migration from a legacy state water quality database (STOREASE) into the modernized EPA STORET system, in anticipation of using it to develop a comprehensive client-server Watershed Site Analysis and Monitoring application

Department of Justice

- Successfully replaced the Criminal Justice Information Network (CJIN) with more efficient and up-to-date technology that makes it easier to communicate with users as well as keep up with the changing interfaces with the department's federal partners.
- Successfully replaced the Criminal History Records System (CHRS) with a much more effective database and platform.
- Introduced the Sex and Violent Offender Web Site where the general public can check the location of convicted sex offenders and violent offenders who are required by law to register.

Office of Public Instruction

- MAEFAIRS – Montana Automated Education Financial and Information Reporting Service that reports and pays $600 million per year to fund the state share of school costs. Staff made numerous modifications to take advantage of some of the latest web technology. School district users have been very complimentary about the system and continue to be a great source for identifying enhancements to the system.
- The Montana National School Lunch program web site was one of the first web-based payment systems in the state.
- OPI continues its collaboration with the Governor's Office, Legislative Services Division, MCA search engine, Board of Public Education, Northwest Regional Education Labs, numerous education-related associations, and others for on-going web hosting services.
- OPI provided a way for all school districts to communicate data electronically on a real time basis. OPI worked with the Department of Administration to develop a system using CITRIX to provide data access to local schools and district personnel throughout the state.
- OPI strengthened its commitment to education and training of both OPI staff and school district staff using its training facility.
- OPI implemented a knowledge base to provide web users with a question and answer format for answering frequently asked questions. The knowledge base is incorporated into OPI's electronic mail system to ensure that questions are forwarded to the correct staff person and that follow up e-mails are generated for questions not answered within a given period.

Public Employees Retirement

Implemented a web-based application for processing employer and employee contributions received from state agencies, university system, school districts, cities, counties and other local government entities. This application greatly decreased processing time and will ensure members of the PERS Defined Contribution Plan receive the money in their investment accounts timely.

Department of Public Health and Human Services

Completed or started the following systems in the past 2 years:

- Medstat Advantage
- DRAMS (Drug Rebate Analysis/Management System)

- OMNIALERT
- IDEA (Integrated Data for Evaluation and Assessment)
- PHDS Public Health Data System (IDEA Phase I)
- SOPHI (IDEA Phase II)
- TESS (The Eligibility Screening System)
- XITEC
- VHSP (Virtual Human Services Pavilion)
- EBT (Electronic Benefits Transfer)
- CCUBS (Child Care Under the Big CAS (Cost Allocation System)
- e!SOR (Electronic Statements of Remittance)
- PERQS (Purchasing Entry, Receiving and Query System)
- LIEAP re-write to Oracle (Low Income Energy Assistance Program)
- MEBRS (Montana's Electronic Birth Registration System)
- CHRIS (Children's Health Referral Information)
- MICRS (Management Information & Cost Recovery System - under development)
- MBOMS (Montana Birth Outcomes Monitoring System)
- MASTS (Montana Aging Services Tracking System)
- MTAP (Montana Telecommunications Access Program - under development)
- TAMS (Trust Account Management System)
- Travel Claims System (under development)
- TIER (Totally Integrated Electronic Records)
- Montana Health Alert Network
- National Electronic Disease Surveillance System (NEDSS)
- HIV-SAFE (HIV-Statewide Activities for Evaluation)

Department of Revenue

During the past two years the Department has regressed in virtually all areas of IT accomplishments, due to being fully consumed with the POINTS project. The expectation of a fully implemented POINTS project providing timely customer service for taxpayers, enhanced revenue collection for the state, and efficient systems for use by departmental employees through a customized, integrated computer system has not been realized. During calendar years 2001-02 progress was made in bringing POINTS to stability. A maintenance implementation and stabilization project plan is in place along with a clearly defined scope of work – called a Target List – with established milestones leading to a goal of stability by December 31, 2002.

Secretary of State

- Uniform Commercial Code system (UCC) was rewritten and moved from the mainframe to the mid-tier environment.
- In conjunction with Montana Interactive the Online Business Entity Search project provides the public with 24 hours a day, 7 days a week access to the following business information;
  - Research whether a business name is already in use or is available for use for their business name.
  - Research whether a specific business is in active or inactive status with the Secretary of State's office.
  - Obtain the name and address of the registered agent for a specific business.

- Obtain the physical address of the business.
- Learn when a corporation was first organized.
- Print a certificate of authorization or a certificate of existence.
- Order a certificate of fact from the Secretary of State's office.

- Implementation of Bar Code Cash Management technology.
- Updated Centralized Voter System

State Auditor

- Developed an interface to share licensing information between the State Auditor database and the NAIC database.
- A new web site was created with greater interactivity and friendliness. Agents, agencies and companies are able to query much of the information maintained online.
- An application was developed to help track information on insurance and security fraud investigations

State Fund

- The IT staff has been focused on the support and enhancement of its main legacy system – PowerComp.
- Development of a web-based data warehouse system. The continued support process coupled with the Internet delivered access to production data through the data warehouse will greatly enhance State Fund's ability to service its customer base.

Teachers Retirement

- Electronic imaging of all documents received/generated within the agency.
- Electronic submission of member contribution information.
- Online retirement benefit analysis program for members (complete, but not yet in production)

Department of Transportation

A few of the more recent accomplishments include new applications systems and agreements that have been moved to production and which support day to day operational processes as well as other requirements that support MDT decision makers.

- Project design "booklet maker", "plotting server". This system allows designs (many over 100 pages) to be correlated at a designers level as well as contract plans level. Designs are handled electronically rather than having to be plotted locally and rescanned.
- Electronic Document Management is now in production for CADD designs. Related to the above project, this system adds the following functions: document check in and check out, versioning, workflow and more. This system utilizes a web based user interface.
- Metadata system is in production. This web application is used for accessing all categories of MDT information that are available through MDT databases and related documents.
- To assist with the integration, sharing and exchange of information between database applications new procedures and shared modules have been developed which support the referencing of roadway segments via base ids, departmental ids, corridors and more. The road log and maintenance management systems have been upgraded to take advantage of these new integration system features. Many other applications will be upgraded as well to take advantage of these capabilities.

- MDT's payroll system has been redeveloped in an Oracle environment and moved into production. The system was redesigned to support SABHRS coding structures as well as several other key requirements.
- A new MOTORS Maintenance contract was signed between MDT and Affiliated Computer Systems (ACS). This contract continues the strong partnership between these organizations. Fuel tax systems, registration systems and permitting systems are the core processes served by this agreement.
- AASHTO's (American Association of State Highway Transportation Officials) decision support system was moved to production. This system supports many of MDT's requirements for the development of construction contracts.

Progress Toward State IT Plan Implementation

Statutory Requirements

The Montana Information Technology Act requires the department to include in its biennial report an evaluation of performance relating to information technology and an assessment of progress made toward implementing the state strategic information technology plan. This section of the report includes discussion of both topics.

An Assessment of Progress in Implementing the State Strategic Plan

The State Strategic Plan for Information Technology was officially adopted on April 1, 2002. In its initial form the state plan does not include performance measures as that level of detail would find itself included in the goals/objectives/performance measures/metrics of the individual state agency information technology plans. State agency strategic plans for information technology were completed June 30, 2002. At this time, the department does not have enough information to assess the state's progress toward implementing the state strategic plan for information technology.

However, progress has been made relating to the state's strategic initiatives, as documented in the following section. The department is in the process of establishing measurements, which would provide the information necessary to complete an assessment of the progress toward implementation of the state's vision for information technology.

Status of Strategic Initiatives

The following sections detail the current status of the eight statewide strategic initiatives identified in the State Strategic Plan for Information Technology.

Implementing Best Practices

Work on this initiative so far has involved research of project management and software development methodologies that use best practices as defined by the Project Management Institute (PMI), the Software Engineering Institute (SEI), and IEEE. Phases of these methodologies include project screening, evaluation, prioritizing, and analysis of prospective IT projects. The objective is to impose a greater degree of control over projects by breaking each one down into a "project life cycle" with defined steps for initiating, planning, controlling, executing, and closing out each project. Efforts are being made to fast track the development of a project management methodology for the State of Montana by taking advantage of work already done in this area and lessons learned by several sister states. The goal is to develop a Center of Project Excellence (COPE), that supports certified project managers in effectively controlling IT projects from start to finish and to identify and correct troubled programs and projects earlier in their life cycles through the use of Independent Verification and Validation (IV&V).

In the area of contract management activities, the Contractor Assessment Program (CAP) has been developed to assess and track the performance of contractors. A database has been developed to collect the assessment data. Agency training is scheduled for November. Also, an effort to review and

update the language in the State's IT contracts and RFP's has been undertaken and is almost complete. Some of the new contract language is currently being used in ITSD contracts. Once complete there will be a standard IT Contract and RFP template available for agency use.

SummitNet

SummitNet (State and Universities of Montana Multi-protocol Network) is the state's data communications network. State agencies, libraries, local government, K-12 schools, tribal colleges, and universities all have access to SummitNet. SummitNet provides data communications connectivity to over 530 office and campus locations throughout Montana.

SummitNet II is the State of Montana's next generation telecommunications network. It consists of communication lines across the State of Montana. These communication lines provide Data, Voice and Video services to Educational and Government entities. A goal of Summitnet II is to consolidate voice, video and data onto a single statewide network, improve services and reduce costs. The transport technology chosen to accomplish this is Asynchronous Transfer Mode (ATM). The State of Montana formed partnerships with several private companies and continues to deploy Summitnet services where feasible.

Additionally, the network will be able to accommodate technological advancements and changes in requirements. With one network that can accommodate growth and expansion, provide greater bandwidth to remote locations, and achieve cost efficiencies through shared resources, SummitNet II will deliver high quality service to its customers. Summitnet II services are currently deployed in Billings, Bozeman, Helena, Great Falls, Havre, Butte, Dillon, Missoula and Kalispell. Today voice, video and data services ride a single transport (ATM) between these locations. Another major benefit of the Summitnet II project is that the citizens and private businesses of these communities have access to ATM services.

Interactive Video

In June of this year, a statewide forum was held to discuss an enterprise approach for implementing interactive video solutions. Representatives from agencies, universities, and end-users of video services attended the forum. Federal Engineering Consultants presented their recommendations based upon results of a study they conducted regarding state video services. These recommendations included:

- The state should keep MetNet because statewide users like the service.
- The state should adopt H.23 as the new video standard.
- ITSD should adopt a subscription type rate structure for providing video services. Because not enough people know about the availability of state video services. ITSD should aggressively market them.

ITSD is currently providing video services for classes and agency conferences. Additionally, ITSD issued an RFP to acquire new video equipment, services, and maintenance contracts. At the time of printing this document, a successful vendor had been identified and the state had entered into contract negotiations. ITSD expects to begin offering LAN and WAN IT based video services early in calendar year 2003, depending on the availability of necessary funding.

Montana Educational Network Cooperative

This strategic initiative is proposed as a cooperative effort of public schools, institutions of higher education, libraries, and state agencies. The Cooperative will focus on the educational telecommunications infrastructure and other technology available to students and educators throughout the state in order to provide the greatest access to and value from Montana's educations community.

A coordinated effort between the Office of the Commissioner of Higher Education and the Office of Public Education is critical to the success of this initiative. At this time both offices included discussion of the initiative in their agency IT plans and have proposed a forum to discuss the opportunities with their constituents. The SummitNet Executive Council, responsible for advising the Department of Administration on the use and expansion of SummitNet will sponsor the forum in late May early June 2003.

Public Safety Communications

Public Safety Communications

Governor Martz established the Statewide Interoperability Executive Council (SIEC) this past June to guide development of wide-area, multi-agency public safety communications systems. The SIEC is composed of leaders of fire, police, EMS, and land management agencies at all levels of government, as well as city, county, and tribal management organizations, working closely on shared goals. The eighteen-member council has set its initial focus on technology standards and governance models for cooperative radio systems that will simplify communications between agencies. Initial concept demonstration projects funded by federal appropriations and grants are anticipated in the 2005 biennium.

9-1-1 Program

The State of Montana 9-1-1 Program is responsible for administering the state's 9-1-1 program on behalf of all local 9-1-1 jurisdictions. It provides a single point of coordination and support and direction for the implementation of Basic 9-1-1 and Enhanced 9-1-1 (E9-1-1) emergency telephone systems throughout the state and for upgrades and improvements to those systems once they are in place.

Over 62% of Montana citizens have access to E911 services. While the majority of the population has the benefit of the enhanced service, many of the rural areas in Montana are just beginning their planning stages. The State 9-1-1 Program Office has initiated an Outreach campaign to assist the jurisdictions in the planning and deployment process. By year end 2002 it is expected to have an additional 18 plans approved. Total statewide E9-1-1 deployment is projected in the next 5 years.

Wireless E9-1-1 is critical to the State of Montana and emergency services. This service will enable emergency services to respond quicker by providing the dispatcher with critical location information for a caller on a wireless phone. There are three phases in which Wireless E9-1-1 can be deployed, the final stage will allow call-taker to receive both the caller's wireless phone number and their location information.

In addition, location and mapping information is being collected in State owned buildings to allow for quicker response in case of emergencies. An Emergency Preparedness Network (EPN) will target emergency notification service specifically to deliver warnings and critical safety instructions to designated geographic emergency areas.

E-Government

The state of Montana has made great strides in providing government services online allowing customers the ability to complete their business with the state on their own schedule and at their own location. During 2001, working through an alliance with a private company, the state established the infrastructure necessary (hardware, software, security measures, payment portal) to provide end-to-end transaction based e-Government services.

Starting in May 2001, the state introduced nine e-Government services offered by five different state agencies. Several of these are cornerstones of DiscoveringMontana.com such as the Business Entity Search, Professional and Occupational License Renewal and Lookup, and the Driver Control Record Access. Through October 2002, ten e-Government services offered by eight different state agencies were introduced. Key applications include the Correctional Offender Network, Income Tax Express, Registered Principle Search, Searchable Properties Service, and the Child Support Payment Display. Eight more services are currently in planning and development scheduled to be introduced by March 2003. Notable services in planning and development include University of Montana Tuition Payments, Motor Vehicle Registration Renewal, UCC Filings, Income Tax Filing, and Hunting and Fishing Licenses.

As the state moves forward with this strategic initiative, the state is taking steps to bring a common look and feel to DiscoveringMontana.com throughout all agency websites. Every month new e-Government services are added and the state continues to work toward the goal of including services on DiscoveringMontana.com for every state agency.

Montana Geographic Information Systems

Work on this strategic initiative has been going forward on several fronts. Several "data layer" implementation teams have been established for creating and maintaining geospatial data critical for Montana's needs. Three new data layers: Telecommunications, Energy Distribution, and Critical Structures, were established in September 2002, making a total of 14 data layers currently listed as part of the Montana Spatial Data Infrastructure (MSDI).

Eleven of these data layers have teams working on them. Most of the teams have drafted strategic plans for development and expansion of the data layers. A formal reporting structure has been established for the data layer teams to report back to the Montana Geographic Information Council (MGIC). These teams also coordinate with the Office of Management and Budget (OMB) and the Federal Geographic Data Committee (FGDC) through the state's GIS coordinator. Teams will participate in the Geospatial One-Stop initiative and will cooperate with the U.S. Geological Survey (USGS) on development of the National Map, as appropriate. The state is participating with the federal government to implement federal standards for GIS data.

The Homeland Security Task Force has created a GIS subcommittee whose job is to recommend policies and procedures to collect the "right" data regarding the state's critical infrastructure. MGIC is working with the Data Access Implementation Team and other parties to develop improved and standardized methods of data access. MGIC is also working to comply with recommendations of the Legislative Audit Committee regarding GIS implementation, development, and maintenance.

Criminal Justice Information Systems Project

The Montana Criminal Justice Information System Project (MCJISP) is a multi-agency initiative launched to ensure that Montana keeps pace with the critical need to gather and provide timely and accurate criminal justice information.

The MCJISP Advisory Group, made up of key state, county, and local justice, court and law enforcement officials was created to guide the project in its efforts to successfully improve the process of gathering criminal justice information and disseminating criminal history records.

To provide specific direction for the project, the MCJISP Advisory Group established the following two operational goals:

- Every Montana criminal justice agency shall be able to determine the Montana correctional status within two minutes, with status currency of 24 hours.
- Every Montana criminal justice agency shall be able to obtain the Montana criminal history record of a person who has one within 4 minutes, with a history currency of 24 hours.

Currently, efforts are focused in two areas; two subcommittees have been established to research and make recommendations on Best Practices for Criminal Justice Information and Data and Networking Standards, and on a pilot project in Glacier and Lewis & Clark Counties where a county model is being developed in terms of connectivity, equipment and access. The subcommittees will make recommendations to the MCJISP Advisory Group in 2003. And, once the local pilot is complete, the intent is to utilize the lessons learned there as a template for the other 54 counties.

Strategic Plan for Information Technology - Executive Summary

Why Information Technology In Government?

In today's world, information technology is a critical enabling factor that drives industry, commerce, education and government. Advances in technology during the past few decades have dramatically changed the way individuals, businesses, and government organizations process, store, and transmit information. For example, in the past, birth, death, marriage, tax files, and land ownership records that a government office must maintain might require an entire floor of a large building, hundreds of file cabinets, thousands of file folders, and dozens of personnel to process, store, and manage. Today, all that information can reside in one plastic and metal box located under an employee's desk. The employee can now locate, duplicate, and transmit one page of that information in a matter of minutes to any location on the globe.

Public Expectations Have Evolved With Technology

Because these new capabilities exist our expectations have changed. Thanks to new technologies such as the Internet, we can buy kayaks from Missoula, check the weather in Helena, and make several stock market transactions in a few minutes at home before breakfast. Because the world of commerce offers such convenience and responsiveness, we have come to expect the same from government. Due to public demand, and because significant cost savings can be realized at the same time that services are dramatically improved, government has no choice but to implement appropriate information technologies. The downside of this reality is that difficulties and complexities always accompany the introduction, coordination, and management of technology. This is especially true in large organizations that struggle to meet the various needs of many interrelated entities.

The State of Montana Strategic Plan for Information Technology

Realizing these facts, the Montana State Legislature passed the Montana Information Technology Act in April 2001, setting in motion a number of parallel efforts designed to assess, direct, and manage the adoption of information technology in the State of Montana. This document, the *State of Montana Strategic Plan for Information Technology*, is an important step in the ongoing journey toward improving government through the use of information technology (IT).

Moving Forward Together

The overall theme of the Strategic Plan for IT is: ***Moving Forward Together***. This simple but powerful idea is expressed in every section of the document. Montana state government will act as an integrated enterprise with respect to information technology. In this Strategic Plan for IT, the enterprise promises to efficiently use and wisely manage IT resources. Care will be taken to ensure the privacy of citizens and the security of information across the enterprise. By moving forward together, by collaborating with IT vendors, and by sharing information and resources between state agencies, the vision and goals expressed in the Strategic Plan for IT will become a reality for the citizens of Montana.

The *enterprise* is all agencies of the state working collaboratively to use, share, and leverage the investments made in

Overview of the State Strategic Plan for IT

This Strategic Plan for IT shows how we will move forward together toward better state government through the use of information technology. Strategic initiatives are described that offer the first opportunities to implement the Plan. Strategic goals and strategies that chart the course the enterprise must follow to accomplish the initiatives are identified. But in the beginning, the journey toward better state government starts with a vision.

State of Montana IT Vision

Montana state government will:

- ✓ Be customer-focused in providing electronic and traditional access to government services and information
- ✓ Meet customer expectations regarding their right to participate and their right to know, while protecting their right to individual privacy
- ✓ Promote and use information technology to enable its customers to prosper in the global economy
- ✓ Enter into strategic relationships and encourage collaboration at all levels of government to effectively use information technology
- ✓ Meet customers' expectations for the reliable and timely delivery of quality services and information
- ✓ Manage and use IT resources efficiently
- ✓ Establish statewide direction for information technology through fiscally responsible and active stewardship

The State's IT Strategic Direction

The IT Vision sets the strategic direction of information technology for state government. The IT Vision:

- Requires state government to be customer-focused when developing and deploying technology to provide services
- Expects state government to obtain input from the customers served by government
- Requires state government to pursue cooperation and sharing of information and technology resources to minimize unwarranted duplication in services and technology
- Focuses on the appropriate level of technology for state government and how to meet customer expectations for service delivery methods
- Recognizes the need for accountability to the Governor, the Legislature, and the citizens of Montana for state investments in information technology

Customers are the citizens, businesses, federal, local and tribal governments, other organizations and stakeholders that receive services from Montana state government.

Strategic Plan Framework

The IT Vision follows a framework that establishes the priorities and building blocks for moving forward together toward effective implementation of information technology in the future. The IT Vision focuses on building a strong foundation through active stewardship based on:

- A sound strategic planning process
- Carefully crafted policies and standards
- Fiscal responsibility
- Guidance from the governing boards and councils for information technology

Active stewardship means that IT policy makers will provide leadership and take ownership of and responsibility for achieving the IT Vision expressed in the Strategic Plan for IT.

Themes of the Strategic Plan for IT

Common themes have been woven into the fabric of the Strategic Plan for IT. They include ***customer-focus, economic empowerment, strategic relationships, reliability,*** and ***effective management***. These themes drive the direction of technology for the State of Montana into the future.

Goals and Strategies

The Strategic Plan for IT identifies nine goals and 36 strategies that support the themes expressed throughout the document and demonstrate how the state intends to achieve its IT Vision. The goals and strategies set the general direction for state government's use of IT resources. Their purpose is to:

- Guide and prioritize state and agency future IT investments
- Promote coordination of IT resources across multiple agencies
- Lay the foundation for agency IT planning
- Help agencies succeed in achieving their own missions while promoting efficient use of the state's IT resources
- Promote compatibility between agencies' IT plans and the Strategic Plan for IT

Goals of the Plan

The nine goals of the Strategic Plan for IT require the state to:

- Maximize the use of government IT resources through strategic relationships with business and other government entities to enhance the quality of life for Montanans
- Use appropriate and disciplined project management methodologies, and make strategic and fiscally responsible investments in IT resources
- Enhance the performance of agencies' mandates, missions, core competencies, and business processes through the appropriate and effective application of current and standardized IT resources
- Promote the sharing of IT resources, including data, information, business function expertise, and technology among agencies to minimize unwarranted duplication

Strategic Relationships are those entered into by two or more parties enabling the attainment of mutual goals that would be difficult or impossible to reach if attempted individually.

- Aggressively deploy appropriate electronic government services for the benefit of its customers
- Require its IT systems maintain confidentiality and integrity while providing enterprise IT resources consistent with customer needs
- Require reliable service delivery from its IT systems and maintain up-to-date plans and procedures for enterprise wide disaster recovery and business continuity
- Use secure, coordinated, standardized, and shared IT systems to deliver integrated services to its customers
- Develop a comprehensive mechanism for obtaining IT expertise both internal to state government and through external resources in order to support Montana's IT Vision in an environment of constant technological change

Strategies of the Plan

Several dozen strategies have been formulated to guide the implementation of the Strategic Plan for IT and its goals. Where the goals provide the broader path that information technology will take in Montana, the strategies give more detailed and focused direction to state personnel who will be responsible for realizing the IT Vision on the ground and through the wires of state government offices.

Examples of Strategies

The strategies are grouped under the goals that they most closely support. They describe what the state will actually do, such as:

- Develop an IT project management function within state government
- Identify the barriers to cooperation and IT use among state entities and develop plans to remove them
- Deliver services and information directly to the public via electronic and traditional means
- Pursue improvements through additional investment in existing technologies that support state agencies' missions and programs.

The strategies form the real heart of the Strategic Plan for IT. They tell what we must do to move forward together toward realization of the IT Vision.

Strategic Initiatives

If the strategies listed in the Strategic Plan for IT tell state organizations where to shoot, then the initiatives provide the targets. Strategic initiatives are IT-related goals or projects already embraced by the state and pursued to enable state government to achieve its IT Vision. Strategic initiatives provide the specific avenues for implementation of the IT goals. The initiatives identified in the Strategic Plan for IT include:

- Implementing Best Practices
- SummitNet
- Interactive Video
- Montana Educational Network Cooperative
- Public Safety Communications
- e-Government
- Montana Geographic Information Systems
- Criminal Justice Information Systems Project

Each strategic initiative completed moves us one step closer to achieving our IT Vision.

Success Factors

The Strategic Plan for IT contains goals, strategies, and strategic initiatives that the state must implement to demonstrate success. Several factors are critical to the successful implementation of the Strategic Plan for IT. These include:

- Commitment and support of the Legislature
- Commitment and leadership of the Governor and Information Technology Board
- Department and agency senior management commitment and leadership
- Cross departmental cooperation and coordination
- Department and agency participation through the IT governance groups
- Compliance/adherence to the statewide enterprise architecture and standards
- Managed expectations for IT initiatives
- Ongoing education/training of IT and departmental staff involved in the deployment and maintenance of IT assets

Next Steps

The Strategic Plan for IT does not exist in a vacuum. It must be integrated with a number of other efforts occurring every biennium. For example, state statute requires agencies to prepare their own IT plans that must be fully integrated with the state's Strategic Plan for IT. The next steps toward achieving the IT Vision are included in this document.

Conclusion

The use of information technology to improve state government is not an option; it's a necessity, and it's already happening. In order to properly manage the implementation of IT resources, careful planning is mandatory. The Information Technology Board created the *State of Montana Strategic Plan for Information Technology* to give purpose and direction to IT planning and implementation. By adopting and following this Strategic Plan for IT, state government will benefit from the vision and structure it provides and avoid costly mistakes due to lack of coordination and poor communication among state entities. In the following pages you will see the vision, goals, and strategies for state government in regard to information technology in the 21st century. The Strategic Plan for IT contains an IT Vision that focuses on the needs of state government's customers in determining IT directions. The goals and strategies will serve as the stepping-stones to that Vision.

The IT Vision moves us forward together toward more responsive, reliable, and convenient state government services for all Montanans.

Summary of Agency IT Plans

Overview of Agency IT Planning Process

As required by the Information Technology Act, each agency submitted its agency IT plan to the Department of Administration, Information Technology Services Division (ITSD) for review and approval. Each plan included a statement of the agency's mission, goals, and objectives for information technology and a discussion of how the agency uses or plans to use information technology to provide mission-critical services to Montana citizens and businesses. It also included an explanation of how the agency's mission, goals, and objectives for IT support the Strategic Plan for IT for the State of Montana.

This first effort of preparing IT plans represented a significant effort on the part of agencies. When developing their IT plan, each agency was required to first consider how information technology could meet its business needs. In doing this, they were asked to think in terms of a six-year horizon, not just for the immediate or short-term. This represented a significant challenge for some of the agencies. Nevertheless, all agencies' IT plans are now aligned with the state strategic IT plan, and some agencies identified specific objectives to achieve the state strategic initiatives that are defined in the state plan.

Several lessons were learned by ITSD staff and by agency planning personnel during this first planning exercise. Goals and objectives identified in several agency plans were often unclear and not readily measurable. Metrics, measures, and timeframes for accomplishing IT objectives, as described in the agency plans, were often not well defined. Also, the final section of the planning template was confusing. Items listed in this section were intended to represent the major agency IT budget initiatives (EPP items) of the agency, and were to tie back to or align with the IT goals and objectives described in section 3 of their plan. These lessons learned will help in future planning efforts.

Summary of Agency IT Plan Components

As part of its IT plan, each agency was instructed to submit certain information relating to the agency and its plans for using of information technology. This information included the following:

- Mission statement – A statement of why the agency exists and its fundamental purpose.
- Agency profile – An explanation of the business service areas of the agency and whom they impact.
- The size of the agency in terms of the number of FTE, the number of FTE that are IT related, its operating budget, and its IT budget as a percent of total budget.
- A description of its significant IT accomplishments within the last two years.
- A description of its current IT environment - Its information resources, the types of information the agency collects, and the kind of information it distributes to the public. In addition, each agency provided a summary of its IT architecture in terms of hardware and software technology falling into the categories of emerging, mature, declining, and obsolete.

- A summary of planned IT changes and planned IT initiatives.
- A description of the agency's vision for information technology.
- A discussion of how the agency uses information technology in its current operating environment as well as how it plans to use IT in the future.
- A list of the agency's goals and objectives for information technology. Each agency IT goal was to be accompanied by an indication of how it supports a statewide IT goal. Each goal was to be accompanied by an objective or list of objectives describing how the goal would be accomplished. Each objective was to include specific measurable achievements and timeframes.
- Major IT initiatives that the agency plans to pursue over the next six years.

General Conclusions

Agencies are to be commended on a job well done. This was truly a great first effort for the state. It is clear that the planning effort adds value to the overall information technology environment.

There were several common issues identified among all agency IT plans for which ITSD recommended changes to some of the agencies goals and objectives:

- More work needed to go into the effort of establishing measurements and timelines for achieving IT objectives.
- Agencies were asked to add or modify a goal with objectives for Disaster Recovery & Business Continuity.
- The agencies were asked to identify their use of non-standard software and hardware and to describe their plans for migration to state standards.
- Several agencies' plans included goals for developing or expanding their capabilities to deliver services to citizens and businesses through electronic government initiatives. Agencies were asked to work with the Internet Technology Services Bureau of ITSD as they pursue this technology and to be more specific regarding their expectations and timeframes for developing e-government services.
- Some agencies were asked to identify specific opportunities for possible cooperation and sharing of resources (such as consolidation of servers) with other agencies.
- Agencies with proposed major IT initiatives were asked to submit project plans for those initiatives.

Summary of Planned Agency IT Activities

The individual agency IT plans can be reviewed by accessing them on the state's website: www.state.mt.us/itsd/stratplan/agencyplans.asp . This section provides a general summary of agencies planned IT activities. These activities are categorized into broad groups and the agency activities are included by category. Detail descriptions of the proposed activities can be found in the agency IT plan or by contacting the agency directly.

Database Development & Enhancements

This category includes activities associated with maintaining, enhancing or replacing existing database applications.

- Public Employees Retirement Administration - Explore reengineering current databases.
- Public Service Commission - Rewrite case management system.

- Natural Resources & Conservation - Rewrite Loan/Grant and Fire Protection systems.
- Revenue – Replace several systems including: CAMA, MODS, & BEVs plus Abandoned & Unclaimed property.
- Environmental Quality - Integrate agency data into an enterprise-wide database.
- Transportation– Implement several new systems including: Pavement Marking Management, Traffic Data Collection and Analysis, Contract Management and Fuel Distributor Processing.
- Lottery – Maintenance of Lottery Management System.
- Administration - Design and develop new databases to consolidate smaller, inefficient databases and allow for web access, including Banking, State Personnel, and Tort Claims databases.
- ITSD - Provide enterprise environment for Workflow and Framework Transportation Database; to support transportation, natural resources and emergency service applications.
- Justice - Fingerprint System
- Political Practices - Campaign Finance Database
- Secretary of State - Corporations System and Automation of ARM & enhancements to the web.
- Public Health & Human Services - Maintain and enhance existing systems.
- Military Affairs - Resource Database.
- Labor & Industry - MT SKIES
- Historical Society - Searchable catalogue and collection.
- Corrections - PRO-Files development.
- Public Instruction - Replace FoxPro & Access databases with SQL Server.

Web Enabling and e-Government Initiatives

This category includes activities associated with the introduction of new e-government applications, primarily through the DiscoveringMontana web portal.

- Livestock - Identify system functionality that can be provided to customers via Internet
- Commerce - Web based property management to allow tourism businesses to update info directly
- Teachers Retirement - Enhance e-government services.
- Public Employees Retirement Administration – Introduce web-based reporting application to agencies and offer other customer services & education via the Web.
- Public Service Commission - Offer e-filing of cases and public access to filed documents through agency website.
- State Fund – Redesign website with an increased emphasis on e-business.
- Revenue – Introduce credit card payment via e-government services.
- Agriculture - Enhance e-government services.
- Fish, Wildlife & Parks - Enhance e-government services.
- Labor & Industry - Provide additional electronic access to systems including Contractor Registration System.
- Consumer Council - Redesign website with an increased emphasis on e-business.
- Transportation - Assess e-Gov services including Commercial Vehicle Info system and Electronic Road Reporting Systems.
- Administration

    - Build a Central Web Hosting environment
    - Develop a state standard for XML
    - Develop Geospatial e-government enterprise expertise
    - Build on Central Web Hosting environment
    - Continue to build on relationship with MII for e-government services.
    - Continue to establish central access to enterprise information in the Employee Web Portal (MINE).
- State Library - Develop and deploy platform independent, open source Web Services for enhanced, standardized access to tabular and geospatial data.
- State Auditor - On-Line Insurance Licensing.
- Secretary of State - Automation of ARM & enhancement to web.
- Public Health & Human Services - Citrix Metaframe and Oracle Forms/Reports server (Oracle IAS), to leverage our investment in client/server and help ease us into web application development.
- Legislative Services - Internet Broadcast of session activities and expand and improve electronic access to Legislative Branch information.
- Arts Council - Expand use of Web to promote Montana Artists.
- Military Affairs - Web enable resource database.
- Historical Society – Create web development plan.
- Governor's Office - Develop IT strategic direction including e-government solutions and Montana Business Network.
- Public Instruction - Serve up forms and reports for schools via web

Network Expansion and Upgrades

This category includes activities associated with maintaining, enhancing or replacing existing network infrastructure.

- Transportation
    - Travel & Weather info system including 511.
    - Improve Mobil Digital communications with Maintenance section houses, weigh stations & construction sites.
- Adminstration
    - Develop a strategy for IP Telephony.
    - Increased support for PDAs and wireless connections to the network.
    - Directory Services Infrastructure for the enterprise, reducing the number of directories & support.
    - Establish target enterprise architecture.
    - Manage growing voice, data and video needs.
    - Pursue generator for backup power supply for enterprise servers and network equipment.

Personal Computer Replacement and Upgrades

This category includes activities associated with enhancing or replacing the existing PC and associated environment. Several agencies included a goal and objectives to maintain their current four-year replacement cycle for PCs and servers, even identifying the number of PCs to be replaced each year.

- Labor & Industry - Maintain adequate level of current PC's and servers.
- Public Health & Human Services - Continue move from token ring to Ethernet.
- State Library - Maintain adequate connectivity; explore internal gigabit LAN

connectivity.
- Administration - Evaluate "thin client" machines as an alternative to full desktop PCs.

GIS Application Development

This category includes activities associated with maintaining and enhancing the GIS environment.

- Natural Resources & Conservation - Integrate GIS & Water Rights Systems.
- Agriculture - Provide GIS support & services GIS information sharing.
- Environmental Quality - Acquire a GIS data request response system spatially enabled enterprise-wide database.
- Transportation – Introduce road location system to populate a database for local, state& federal use.
- Administration:
  - GIS Transportation Database Project.
  - Provide coordination, planning & expertise on spatial data.
  - Pilot data and web hosting of the cadastral database.
- State Library:
  - Upgrade Thematic Mapper.
  - Distribute NRIS geospatial data holdings, including Framework data, via the Geography Network: a global network of geographic information users and providers.
  - Develop and deploy platform independent, open source Web Services for enhanced, standardized access to tabular and geospatial data.
- Legislative Services - Investigate GIS for research and information presentation.
- Governor’s Office - Enhancements to GIS component of business e-government portal.

Security Projects and Enhancements

This category includes activities associated with security including disaster recovery and homeland security.

- Labor & Industry - Establish and enforce security for applications.
- Administration:
  - Provide dial up, direct connection and VPN access to replace other methods of remote access.
  - Lead the effort in advanced electronic customer and employee Identification.
  - Evaluate opportunity for a centralized SSL Certificate Server.
  - Evaluate telecom equipment locations to ensure security of the equipment.
  - Disaster Recovery Contract for Mid-tier and Web environments.
- State Library - Maintain computing environment security/protection (physical); investigate means to better control of server room security (e.g. key-card); investigate means to provide fire protection.
- Military Affairs - Use VPN for remote access.

Video Systems

This category includes activities associated with maintaining, enhancing and/or replacing existing video capabilities.

- Transportaion - Department Communications & Training and Roadside Animal Detection System.
- Administration - Develop system architecture and support plan for Interactive Voice Response (IVR) and evaluate possibilities of delivering Audio & Video without reducing network performance.

Major IT Projects

A major IT initiative is described as a) an inter or intra-agency business process change requiring a significant change to policy or b) has a budget of $300,000 or more or c) is $50,000 or more and comprises 25% or more of the agency's IT budget. Each major IT initiative was to be accompanied by a description of the business requirement providing impetus for the initiative, a description of how the initiative will help the agency achieve its mission, goals, and objectives as described in the agency's plan, and the technical approach it intends to use for accomplishing the initiative. Included in the following section is a list of each agency's identified major IT projects. **Separately identified within each agency are those projects included within the Governor's proposed 2004-2005 biennial budget request and are identified by an asterisk.**

Department of Administration

Public Safety Communications *
The state is required to take a leadership role with regard to planning for public safety communications systems used by state, local and federal entities in Montana. Implementing standards and interoperable systems are objectives that need to be met, as well as integrating radio, 9-1-1, and GIS technologies for improved emergency response for the public.

Statewide Roadway Centerline GIS *
The Montana Geographic Information Council has determined that a statewide standardized, addressed, digital roadway database is a top priority in the overall development of the Montana Spatial Data Infrastructure (MSDI). This item requests a portion of the funding required to continue coordination of the enterprise effort to build, maintain and distribute digital roadway data. The project will utilize the highly successful implementation model of the Montana Cadastral Database.

Project Management Support *
This request is for ITSD, with the collaboration of state agencies, to provide support and staff assistance in agency project management. Technology is changing rapidly and an increasing demand is being placed on information systems to deliver business solutions faster and with fewer resources. To meet these new demands, the state must ensure that major IT projects are conducted in a disciplined, well-managed, and consistent manner. Project management support will promote the delivery of quality products and result in projects that are completed on time and within budgets.

MSDI Strategic Plan
As referenced by the Performance Audit on GIS Implementation and Development in Montana, this item request is for one additional staff member within the GIS Bureau to improve the planning and implementation of the Montana Spatial Data Infrastructure (MSDI) and enterprise GIS implementation in general.

Directory Services Infrastructure
The state currently has a large number of directories identifying users and controlling their access to various computing platforms (mainframe, mid-tier and PC LAN) and applications. This proposal will establish an enterprise directory infrastructure that will reduce the total number of directories, support directory-enabled applications, reduce administrative effort, improve security and reduce the number of sign-ons.

Electrical Generator
This request would provide for the engineering specification, purchase, and installation of an external, auxiliary electrical generator to provide emergency power to the ITSD computer center and critical supporting facilities in the Mitchell Building. Any generator installed will be designed to be readily relocated to another site.

Department of Agriculture

Preparation for electronic transactions
The use of information technology is growing throughout the agricultural community. As this growth continues the department may need to add staff to work with the public, develop and maintain applications and provide other information systems support to the public and within the department.

Department of Commerce

Purchase and implement CRM software
It is no longer feasible or an efficient use of program resources to track records over long periods of time manually. A new automated tracking system will free up staff time for more in-depth monitoring, and will make preparation of data for reporting and administrative purposes more efficient.

Department of Corrections

PRO-Files information system
This is an ongoing replacement of the legacy Adult Criminal Information System.

Department of Environmental Quality

Restore OTO Federal One Stop Grant – Biennial *
It is recommended that the one-time-only biennial appropriation of $500,000 federal grant funds be restored. This grant is furnished to states that have demonstrated initiative and the capability to further the goals of the I.S. Environmental Protection Agency (EPA) for information technology. The goals for the one stop program are to consolidate data, catalog regulated entities, and provide for data sharing with other government agencies and the public. This grant will provide the department with additional resources to enhance ongoing data conversions of air, water and waste databases into a department enterprise database.

The department received grant award on August 13, 2002. This activity is included in the agency's Strategic Plan for Information Technology. The department will begin work on the grant when EPA approves DEQ's Quality Assurance Plan.

PLBA PCD Database Development
This request is for database enhancement for the recently developed enterprise-wide databases within the Permitting Division. Ongoing database enhancement

would allow the division to satisfy federal requests for additional information.

Governor's Office

Customer Relationship Management (CRM)
A comprehensive implementation that provides seamless coordination between all customer-facing functions by integrating people, process and technology to maximize relationships with all customers.

Montana Business Network
Montana Business Network will raise the bar on e-commerce functionality and provide each business with a means to better promote its services and offerings online and in real time. Montana will be in a leadership role as they provide an opportunity to web enable every business in the state.

Searchable Properties Database
Montana searchable properties database will raise the bar on e-commerce functionality and provide each region in Montana a means to better promote their available commercial properties online and in real time

Ongoing Maintenance and GIS enabled business portal
The Office of Economic Opportunity must continue to update and enhance its web presence, enabling businesses and individuals to make critical businesses decisions and promoting Montana as an innovative state. GIS provides business and individuals with tools and information needed to analyze critical economic development issues.

Historical Society

Security Replacement
Replace current outdate security equipment, and establish a regular schedule for replacement of cameras, monitors, computers, and other security equipment

Information Technology Specialist
Request for Full Time Information Technology Specialist for development of future e-commerce and customer services. Agency lacks capability and budget to currently provide electronic government. Need IT coordination (specialized for Society's special needs) or greatly increased budget to contract with outside sources and ITSD.

Increased Costs for Library Access
Increased funding for digitization, electronic cataloging, and web development of library archives.

Federal Preservation Program
Development and integration of electronic databases and electronic access capability though digitization and database development.

Judiciary Branch

Judicial Branch Information Technology *
The Judiciary requests funding for the 2005 biennium to provide for branch-wide information technology needs. The existing (until 6/30/03) automation program provides system support, training, workstations, file servers, connectivity, and software to all Montana courts and is scheduled to sunset June 30, 2003. This new proposal includes funding to provide 14.00 IT staff, related start-up and operating costs, and replacement equipment.

Department of Justice

Motor Vehicle Registration Automation *
The department proposes to move forward with phase two of the registration automation project initiated last legislative session in HB 577. The current business processes and computer systems designed in the 1980's are now complex, highly inefficient, and difficult to understand and maintain. Redesigned motor vehicle registration and driver licensing business processes and computer systems will provide for greater efficiency and ease of support, expanded and more flexible business functionality, the coordination of the databases with vehicle titling, easier interface with other applications, and better access.

Laboratory Equipment
This request is for the replacement purchase of instrumentation for forensic analysis required in most sections of the laboratory.

Automated Accounting and Reporting System
Provide a complete Automated Accounting Reporting System (AARS) for 18,000 Video Gambling Devices (VGM) and 1700 locations in the State of Montana.

Computer Aided Dispatch (CAD System)
Automate the MHP dispatch process by acquiring and implementing a CAD system, which will improve public safety by delivering more efficient and informative dispatch services.

Criminal Justice Information Network
Maintain the hardware and software components of the Criminal Justice Information Network at current vendor supported levels. During the biennium this will involve upgrading central hardware and software.

Criminal Identification & Central Criminal History Repository
Maintain the hardware and software components used in criminal identification and criminal history records processing. Pursue federal grant monies as available for system improvements.

Commercial Driver's License Program Support
Upgrade the accuracy and completeness of information shared nationally through the Commercial Driver's License Information System (CDLIS) by installing 26 automated testing work stations (Kiosks) in 21 driver-licensing offices located statewide. This Internet-based, computerized, knowledge testing system is essential to improving the commercial driver licensing examination process providing a secure, integrated, modern approach to comprehensive testing.

Lottery

On-line Terminal Purchase
The Lottery will analyze the placement of 165 existing Retail Terminals to be fielded during the first quarter of FY'03. Retailers must demonstrate that they can supply the amount of sales to justify a higher sales volume terminal. The purchase of the high volume terminals will free up the same number of existing terminals which will be placed in new on-line retailer locations.

Office of Public Instruction	**Video Streaming** Over the next six years, OPI hopes to become a leader in video streaming. Video streaming will significantly increase OPI's ability to communicate with and train field users in a range of education related issues. Video streaming has the potential to significantly reduce the amount of dollars spent on professional development travel both at OPI and in the schools.
Political Practices	**Campaign Finance Database (CFD)** Create an on-line database of campaign finance information in order to allow the public the ability access campaign finance information in a timely manner. Envisioned as an Internet-ready database keeping records of all finances related to statewide campaigning and providing complete and accurate data in a timely manner and in a user-friendly format.
Public Employees Retirement	**Administration of Defined Contribution Reporting Plan** To meet the requirements and demands of providing a defined contribution retirement plan option, we must modify our current databases. It is our fiscal responsibility to ensure that members contributions are received timely, reconciled and transmitted to the record keeper for investment in the individual's retirement account timely and accurately
Department of Public Health and Human Services	**Support of Existing Systems** DPHHS plans to maintain systems currently in use including: Food Stamp Benefits and EBT, SEARCHES, Medicaid Investment Incentive Assessment, Child Care under the Big Sky, MMIS/HIPAA, CAPS, MEDSTAT, TEAMS, LIEAP/CDS, WIC and OmniAlert.
Department of Revenue	**Additional Funding for POINTS Maintenance *** These funds are used to contract for specific skill sets through the MIS services contract. Services include development, analysis and programming in the following areas: maintaining the Oracle based One Stop Licensing System; visual basic programming and development; POINTS production recovery functions and peak processing support; interface analysis and programming between mainframe and Oracle environments; Database Administration for POINTS and legacy systems. These IT expenditures will help support and maintain these software applications and upgrade them to current technology. **Discontinuation of POINTS Phase II *** Eleven programmer analysts and one manager are assigned to POINTS maintenance, augmented for the past three years by a 12 member full-time IT consultant and professional staff. With the decision not to pursue funding to implement Phase II of the POINTS project, contractor-staffing levels will be reduced to 5.00 contract programmers. This combination of FTE and supplemental IT consultant and professional staff will be needed to perform POINTS maintenance over the next biennium. **Upgrade wiring in Mitchell Building to Category 5** Upgrade current category 3 wiring to category 5 to support Ethernet connectivity and increased LAN needs of the Department and come into compliance with ITSD recommended standards.

Treasury Offset Program
Initiate a project plan including programming, software and installation, hardware and maintenance, and certified mailings to allow Montana to participate in the Treasury Offset Program by the end of Fiscal Year 2004.

Secretary of State

Information Technology Plan *
The Secretary of State's Corporations system, originally developed in 1982, stores 300,000 paper document files, some of which date back over 100 years. Staff uses the system to respond to approximately 52,000 customer service calls each year. The public can access the information on-line as well. It is now 20 years old and ITSD no longer has the capabilities to support it. The project will be financed with existing proprietary resources.

Automation of ARM & enhancement to web. (ARM-UP)
Administrative Rules of Montana receives over 8,000 replacement pages per year to the published copy of ARM. Many of these pages are not properly formatted requiring many hours to properly format. Staff from both the Secretary of State and the submitting agency spends too much time formatting and correcting these pages.

Image to Microfilm / Microfilm to Image (IMMI)
Many original documents have been filmed and are in permanent storage on microfilm. Microfilm is an excellent choice for the secure, long-term, and low-cost storage of information. Retrieving documents from microfilm can be time consuming and require special equipment. Scanning microfilm gives instant electronic access to information. Microfilming electronic images provides long-term preservation techniques for vital public records.

State Auditor

Implementing adopted technology from NAIC
NAIC is the National regulatory presence for the insurance industry. Uniform regulation and the need for a one stop shopping approach for updating insurance regulation in this country has facilitated each state to interface and communicate with this organization. This requires applications to be developed for interfacing and sharing of information.

Digital imaging
Currently, employees are accessing many hard copies. The information is stored in different locations of the building in lektrievers. These machines are reaching the end of useful life. Once these documents are digitized and put online, the availability will be much quicker and convenient and a costs saving will be recognized by not replacing the lektrievers.

On-line insurance licensing
Create a web site where insurance licensees may renew or receive a new licenses.

Update database applications
Data requirements change, more information is added, forms, reports and procedures need to be created to give us new options in how we regulate insurance and serve the public. Timelines have become doable because of streamlining and more capabilities.

State Fund

Data Warehouse Phase III
Maintain a budget reserve for post-implementation problems associated with the initial launch of the data warehouse system. This project budget reserve will allow high-priority SCR's to be addressed in an expedited manner.

Teachers Retirement

Replace BENESYS system
Implement a system to replace BENESYS. These alternatives include developing a new system with state standard tools (i.e. Oracle) or the new PeopleSoft Pension Admin system being co-developed by PeopleSoft and Deloitte Consulting.

Department of Transportation

Integrated Financial Systems *
Integration of the department's financial systems will eliminate redundancy and duplication of data entry and storage. Implementation will enable the department to identify and monitor the costs of projects on an activity basis and to more readily share this information with the Legislature and the public.

Without approval, the department will continue to operate as usual, but cannot address the imminent demise of some existing systems, the loss of which would result in an inability to deliver the program. Also, without integration, the agency will lack the ability to measure the efficiency of our operations.

Traffic Data Processing Software *
This budget request is for the purpose of developing a customized software package to meet DOT's traffic data needs. The Transportation Planning Division is responsible for collecting, processing, maintaining, analyzing, and reporting virtually all of the traffic data necessary for use by various entities within the department. Other governmental entities and the private sector are also users of this data. If this budget item is not approved by the legislature, DOT will not have a supported software package. At this time the system is unstable and we experience software failures on a regular basis. We fully expect to continue to experience these failures.

Greater Yellowstone Traveler & Weather Information System
The Greater Yellowstone Regional Traveler and Weather Information System (GYRTWIS) project constitutes the third phase of the Greater Yellowstone Regional Intelligent Transportation System (GYRITS) project. The GYRTWIS project aims to improve weather information in Montana, a key part of the Greater Yellowstone region.

Statewide GPS/ITS
The project will use the Global Positioning System (GPS) to collect information about the location of all public roads. It will then incorporate that data into a statewide information system (GIS-T) framework, which will be available to federal, state and local governments and the public.

Roadside Animal Detection Systems Testbed
This project will design and install a platform (testbed) on a site yet to be determined, where vendors may set up their equipment to demonstrate the feasibility of roadside animal detection systems (RADS). WTI will then test the

accuracy of the equipment and report on the results.

5-1-1 Traveler Information
This project provides additional funds toward implementation of a 5-1-1 traveler information phone number in Montana.

STARS (State Truck Activities Reporting System)
STARS is a Montana Department of Transportation (MDT)/Federal Highway Administration funded IT (Intelligent Transportation) project that collects commercial vehicle class, weight and incident data using a statewide system of weigh-in-motion (WIM) equipped sites. Raw data generated per site is uploaded to a central processing computer and used by MDT's Transportation Planning Division, Engineering Division and Motor Carrier Services Division for a variety of purposes.

Weigh-in-Motion (WIM)
While the AVI system is confirming a carrier's credentials compliance, the WIM system is simultaneously confirming the carrier's weight compliance. A carrier who is compliant in both areas may be authorized to "bypass" the weigh station at highway speeds.

Montana Online Tax and Revenue System (MOTRS)
The public expressed a need for improving commercial motor carrier business process during legislative hearings and public forums. This led MDT to develop an integrated tax and licensing system including financial links. MOTRS is an integrated registration, tax and revenue system developed jointly by Affiliated Computer Services (formerly Lockheed Martin IMS) under contract with the Montana Department of Transportation.